

Takeover regulation to protect shareholders: Wealth creation or wealth destruction?

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Abstract: Takeover regulation is fundamental to the efficient workings of the market for corporate control since it affects the size and distribution of expected gains to shareholders of targets and acquirers. To investigate the impact of takeover regulation on shareholders' wealth distribution, we first construct a dynamic takeover law index consisting of six legal provisions for major European countries. Our index reveals that takeover law in the European Union has changed substantially over the past 25 years. We further examine the wealth effects of takeover law in European takeovers between 1986 and 2010. Our empirical results suggest that the effect of takeover law on target announcement returns and takeover premiums is positive, economically large, and statistically significant. We also find evidence that stricter takeover law does not reduce the returns to bidders. Overall, the effect of takeover law on total wealth effects from mergers and acquisitions is significantly positive. Finally, in terms of the components of our takeover law index, we find that the mandatory bid rule significantly increases the takeover premium, target announcement returns and combined returns; the ownership disclosure rule leads to higher target announcement returns and higher combined returns; whilst the fair-price rule and the squeeze-out rights rule may reduce the total gain enjoyed by the combined companies.

Keywords: takeover law, minority shareholder protection, takeover premium, announcement returns, EU Takeover Directive

JEL classification: G32, G34, G38, K22, O16

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1. INTRODUCTION

The potential of large societal and private wealth gains and losses, combined with a rich history and often heterogeneous legal and economic opinions, makes takeover regulation a complex and controversial topic among policymakers, managers, investors and academics alike. Ferrarini (2000); Berglöf and Burkart (2002) and Armour et al. (2007), among others, show that a well-regulated takeover market can create wealth for society by improving the allocation of productive resources. On the other hand, theoretical and empirical research agrees that an unregulated market for corporate control increases the cost of capital for firms by allowing inefficient transfers of control and thus fails to establish allocative efficiency (Goergen et al. 2005; Berglöf and Burkart, 2003; Burkart and Panunzi, 2003; Bebchuk, 1994; Grossman and Hart, 1980).

A large body of literature has estimated shareholder wealth effects using merger announcement returns when a firm is planning to adopt or repeal an antitakeover provision at the firm level, such as supermajority provisions or classified boards (Cuñat et al., 2012; Faleye, 2007; DeAngelo and Rice, 1983; Linn and McConnell, 1983). Fewer studies have attempted to measure the wealth effects of state antitakeover law on firms incorporated in the respective state. Among these, studies of antitakeover laws in the state of Delaware find a positive or insignificant effect (Linn and McConnell, 1983; Jahera and Pugh, 1991), while antitakeover laws in other states seem to have a negative announcement effect (Karpoff and Malatesta, 1989; Giroud and Mueller, 2010). Straska and Waller (forthcoming) conclude that, notwithstanding the significance of individual findings, the available evidence is largely inconclusive as to whether antitakeover provisions increase or decrease shareholder wealth.

In addition to its effects on announcement returns, state takeover regulation is found to be significantly associated with takeover frequency (Comment and Schwert, 1995; Daines, 2001), firm value (Karpoff and Malatesta, 1989, 1995; Daines, 2001), capital structure (Garvey and

Hanka, 1999; Wald and Long, 2007), takeover premium (Comment and Schwert, 1995; Sokolyk, 2011), bond values (Francis et al., 2010), and managerial entrenchment (Heron and Lewellen, 1998; Garvey and Hanka, 1999; Bebchuk and Cohen, 2003; Ryngaert and Scholten, 2010; Sokolyk, 2011).

To the best of our knowledge, however, there are no studies that try to assess the distribution of takeover gains between bidders and targets as a result of antitakeover legislation. This is despite the importance of a ‘level playing field’ and the relative power of the parties involved in a takeover that is frequently cited by legislators in the development of U.S. antitakeover law. Moreover, state antitakeover law has in most cases been enacted to protect local firms from hostile cross-state takeover attempts. While hostile takeovers constitute only a small fraction of all takeovers, we therefore aim to broaden the scope of the literature by estimating the effects of takeover legislation aimed at all takeovers regardless of the bidder’s attitude. At the same time, potentially adverse effects of state legislation on the frequency of value-increasing takeover is particularly important when assessing the social welfare effects of antitakeover law, while premiums paid to target shareholders can shed light on the process by which takeover regulation generates positive announcement returns.

Within the law and finance literature, a related research stream studies a similar relationship between investor protection and capital market efficiency. Bris and Cabolis (2008) and Rossi and Volpin (2004) use the cross-sectional shareholder protection (anti-director) index developed by La Porta et al. (1998) or similar indices to investigate the effects of shareholder rights on takeover frequency, premiums or announcement returns. Bergström and Högfeldt (1997) have also attempted to model the impact of individual takeover regulations, such as the mandatory bid rule and the equal bid rule, on the efficiency of capital markets, but did not empirically assess their impact on target or bidder shareholders. Since existing shareholder protection indices are static by construction, it is not possible to test whether improvements in

investor protection at the country level have positive effects on financial markets (Bris and Cabolis, 2008).

While the majority of the extant literature is heavily skewed to the examination of U.S. antitakeover regulation, far less attention has been paid to the European market.³ Despite the increased value and number of transactions by European firms in recent takeover waves (Martynova and Renneboog, 2008a, 2011b) and the introduction of the European takeover directive in 2004,⁴ the optimal breadth and depth of takeover regulation in the European countries, with respect to wealth gains and transfers in takeovers, have not been empirically investigated.

The aim of this paper is to fill these gaps by empirically evaluating the effects of laws governing takeover bids on wealth distribution and the efficiency of takeover regulation. The heterogeneous capital markets in Europe provide an opportunity to explore the effects of takeover law in a set of countries over time and during a critical phase of the development of their capital market and market for corporate control. After the Takeover Directive had been implemented by EU member states, European takeover regulation reached a steady state around 2008. The available sample of takeovers thus spans the most active period of legal developments in takeover regulation and now covers all critical sub-periods. We are thus able for the first time to evaluate the effects of national takeover law as a whole and of individual provisions in practice for European countries. Specifically, we try to identify whether takeover law create or reduce wealth to shareholders and aim to answer the following questions: (1) Does stricter takeover law protect minority shareholders and generate a higher return for the target shareholders? (2) Does stricter takeover law hurt the bidding firms and reduce the gains to the acquirers from takeovers? (3) What is the overall wealth effect for shareholders involved in

³ Hagendorff et al. (2012) examine the takeover premium paid in bank takeovers and find that stricter bank regulation and stronger deposit insurance schemes lower the takeover premium paid to EU targets.

⁴ Directive 2004/25/EC of the European Parliament and of the Council of 21 April 2004 on Takeover Bids, O.J. 2004 L 142/12

takeovers? (4) Which legal provisions matter most in explaining the variation of takeover gains for targets and bidders?

To answer these questions, we construct a dynamic takeover law index that reflects the evolution and quality of takeover law in EU economies with respect to the (re-)distribution of wealth in takeovers. The index, which is designed to capture the most critical elements of takeover law, includes six provisions: ownership disclosure, mandatory bid, fair price for the minority shareholders, squeeze-out rights, sell-out rights, and management neutrality.⁵ A higher index score represents a more stringent takeover regulation in a given country, in other words, a market for corporate control more favourable to target shareholders. To the best of our knowledge, this is the first study to create a comprehensive and dynamic takeover law index for EU countries, which enables a straightforward comparison between countries in terms of their market regulations for corporate control.

We empirically examine the effects of takeover regulation on shareholders' wealth for both target firms and bidding firms in the period 1986-2010. We focus on announcement returns as a proxy for expected wealth generation and wealth transfer in takeovers and compare them to takeover premiums as a measure of the bidder's willingness to pay. Consistent with our hypotheses, our results show that a stricter takeover law provides better protection for the minority shareholders in the target firms in the case of a takeover bid. The results provide strong evidence for an economically positive and statistically significant effect of a strict takeover law. In economic terms, the result demonstrates that changing from the weakest takeover law to the strongest takeover law is associated with a 44 percentage points increase in the takeover premium paid to the target shareholders and a 25 percent higher announcement return for target shareholders. We further investigate which takeover law provision matters in determining the wealth distribution to target shareholders in mergers and acquisitions. Table 1 shows a summary

⁵ The scores and the sources of the takeover law index are provided in separate appendices, which are available from authors upon request.

of the findings. Our evidence suggests that the ownership disclosure rule and the mandatory bid rule significantly increase the takeover premium paid to the target shareholders as well as target announcement returns.

[Table 1 about here]

Notably, our findings do not support the hypothesis that stricter takeover law reduces the returns to bidders. We find similar results for individual takeover law provisions. All our estimations control for deal features and firm characteristics and are robust to the addition of shareholder and creditor protection measures. Most importantly, our findings suggest that stricter takeover regulation increases the total wealth for the combined companies. The results on combined announcement returns for targets and bidders support this hypothesis. The evidence suggests that stricter takeover laws significantly increase the total weighted wealth gains for targets and bidders through 5 percent higher combined announcement returns. This indicates an improved efficiency in mergers and acquisitions under a stricter takeover law.

A mediation test for offer premiums shows that takeover law creates this effect mainly through higher offer premiums, but also directly increases announcement returns for bidders as well as the combined entity. To further explore the total wealth effects of takeover law, we exclude the U.K. targets in a closer examination. The result presents a statistically positive but economically stronger effect of the takeover law index, the ownership disclosure rule and the mandatory bid rule on the weighted announcement returns for non-UK targets. Interestingly, the results indicate that the fair price rule and the squeeze-out rights rule tend to reduce the total wealth of the combined companies when we exclude U.K. targets.

Our paper contributes to the extant literature (Nenova, 2003; Rossi and Volpin, 2004) by constructing a dynamic takeover law index. Most importantly, the multi-country structure of

our original takeover law index allows us for the first time to control for unobserved heterogeneity in the time dimensions. We can identify effects of regulation on total shareholder wealth where previous studies were not able to control for time effects due to a lack of a time variation in their legal variables of interest or insufficient cross-country variation. Another important contribution is our empirical evaluation of the effects of national takeover law as a whole and individual takeover provisions in European countries. More specifically, we identify the effects of takeover regulation on offer premiums and announcement returns for both bidders and targets. Our closer examination of the combined bidder-target wealth effects is particularly important, because premiums enjoyed by target shareholders may in part represent transfers from bidders (Burkart, 1999). Combined with an estimation of the likelihood of a successful takeover, this analysis offers valuable insights into the redistributive wealth effects of takeovers and the broader impact of takeover regulation in practice.⁶ The dynamic takeover law index and our empirical findings are of interest to policy makers, practitioners, managers, investors and academic alike by providing an evaluation of the most salient policy options and the economic implications of takeover regulation.

The remainder of this paper is organized as follows. Section 2 develops our hypotheses. Section 3 outlines the construction of the takeover law index and analyzes the evolution of takeover law in the EU. Section 4 describes the acquisition dataset and introduces our identification strategy. Section 5 presents the empirical results on takeover premiums, announcement returns to targets and bidding firms and the likelihood of a successful takeover. Robustness analyses are reported in Section 6. Section 7 concludes.

⁶ To the best of our knowledge, there are no previous studies that empirically examine the wealth distribution effect of takeover regulation in a takeover bid, though takeover regulation has attracted the attention of policymakers, managers, investors and academics alike with the increased value and number of transactions since early 1980s (Grossman and Hart, 1980; DeAngelo and Rice, 1983; Linn and McConnell, 1983; Bebchuk, 1994; Comment and Schwert, 1995; Ferrarini, 2000; Berglöf and Burkart, 2003; Rossi and Volpin, 2004; Goergen et al. 2005; Armour et al., 2007; Martynova and Renneboog, 2008a; Ferrarini and Miller, 2010; Cuñat et al., 2012; Straska and Waller, forthcoming).

2. HYPOTHESES

According to Berglöf and Burkart (2002), the aim of any takeover law is to protect the minority shareholders in a takeover bid and the promotion of an efficient market for corporate control. In other words, an appropriate takeover law balances the relationship between targets and bidders, minority shareholders and majority shareholders, and shareholders and managers. Stricter takeover law could benefit the target shareholders in many ways, in which the central provisions are associated with information disclosure, equal opportunities and defensive measures available to the target management.

Firstly, ownership disclosure requires an early disclosure of the toehold that potential buyers have acquired in target firms. This initial stake in a target firm is the primary source of profits for the bidder (Walkling, 1985; Choi, 1991; Burkart, 1999). Authors dating back to Bebchuk (1982) have proposed that improved regulations, such as better information disclosure, increase the chances of competing acquirers launching a bid. A tougher disclosure rule makes it easier for rivals to “free ride” on the initial bidder’s efforts to search and screen an appropriate target (Grossman and Hart, 1980). To deter other potential buyers from entering the bidding process, the initial bidder can raise the price offered to target shareholders; in order to further gain control of the target firm, the successful bidder may end up bidding a share price higher than what they would otherwise pay without a competing bidder. Thus, the competition fostered by a stricter disclosure environment is likely to increase the takeover premium.

Ownership disclosure also increases the transparency of a takeover bid and protects the minority shareholders, since it is often combined with a mandatory bid rule that compels bidders to submit a tender offer once they cross certain ownership thresholds (Franks and Mayer, 1996; Zingales, 2004; Armour et al., 2007; Siems, 2008; Chen, Chen and Wei, 2009; Schouten and Siems, 2010). However, lower disclosure requirements, which render the further purchase of the shares less attractive, will reduce the number of takeover bids and subsequently lead to a

less active market for corporate control (Zingales, 2004; La Porta et al, 2000). Better information disclosure will also improve the bargaining power of the shareholders and managers in target firms because, with the relevant information, they can evaluate the bid properly and time the bid to extract a higher premium (Armour et al., 2007; Chen, Chen and Wei, 2009; Schouten and Siems, 2010). As a result of transparency and fairness considerations, the ownership disclosure rules have become more stringent over time as they converged across countries (Siems, 2008; Schouten and Siems, 2010).

Secondly, equal opportunities for all investors and the fair treatment of minority shareholders are the most important elements for any takeover law (Goergen et al., 2005). With stricter takeover law, minority shareholders obtain better protection and have more chances to participate in the takeover process. For example, the mandatory bid rule obliges a bidder to make a tender offer to all outstanding shares once the direct or indirect holdings have accumulated to a certain percentage of voting rights. Therefore, it protects the minority shareholders by providing them with an opportunity to exit the company, especially when combined with a fair price rule (Bebchuk, 1994; Macey et al., 1995; Skog, 1997; Bergström and Högfeldt, 1997; Burkart, 1999; Ferrarini, 2000; Berglöf et al., 2003; Goergen et al., 2005; Ferrarini and Miller, 2010). Such protection of minority shareholders is important to encourage them to participate in stock markets, especially in firms with concentrated ownership (Goergen et al., 2005). At the same time, an improved position of minority shareholders guarantees that the premium enjoyed by the controlling parties, which often largely corresponds to the dominant shareholders' private benefits, is shared with the target minority shareholders at the time of the takeover (Bebchuk, 1994; Skog, 1997; Ferrarini, 2000; Berglöf et al., 2003; Goergen et al., 2005; Ferrarini and Miller, 2010).

In addition, strict takeover law also sets up the rules related to the orderly process of a takeover bid, which results in the bargaining power shifting from the bidder to the target. For

example, the sell-out rights rule offers minority shareholders the right to require the majority owner to buy them out at a certain level of shareholdings. It protects minority shareholders and effectively reduces the pressure from minority shareholders to tender the shares. With increased bargaining power, target shareholders are more likely to receive a higher takeover premium. Thus, the sell-out rights rule may have a positive effect on the takeover efficiency and the minority interests (Burkart and Panunzi, 2003). The counterpart of the sell-out rights rule is the squeeze-out rights rule which grants the bidders a right to purchase the remaining shares after they exceed a certain ownership level. The squeeze-out rights rule can be used to control the free-rider problem by the bidders and dilute the value of the minority shareholders (Yarrow, 1985). Thus, it could hurt the minority shareholders in the case of a takeover bid.

Thirdly, takeover law also governs the use of defensive tactics in a takeover bid by the target management. Supporters of board defence school believe that providing boards with the power to defend themselves in takeovers should be beneficial, because takeover defence is used by the target management when they believe the firm has hidden values or when they believe resistance will increase the bidding price (Bebchuk, 2002). With better information in an imperfect capital market, the management negotiation on behalf of the shareholders prevents coercive bids (Berglöf et al., 2003; Bebchuk, 2002). However, with more defensive tactics, target management could have more opportunities to pursue objectives other than the interests of the shareholders (Garvey and Hanka, 1999). In the context of takeovers, this agency problem is more severe because boards are self-interested, hence they should not have defence power in takeover bids (Garvey and Hanka, 1999; Bebchuk, 2002; McCahery et al., 2003; Goergen et al., 2005; Sokolyk, 2011). By allowing the target management to protect their private benefits at the expense of shareholders, takeover defenses increase the costs of a takeover bid and consequently lead to fewer takeovers. To reduce the agency problem, strict takeover law tends to limit the anti-takeover measures that target managements might be entitled to use in a

takeover bid.⁷ For example, the management neutrality rule compels the target management to obtain the explicit authorization from its shareholders before they adopt any defensive actions to frustrate a takeover bid. It effectively addresses the potential agency problems between the shareholders and the target management (Bebchuk, 2002; McCahery et al., 2003; Goergen et al., 2005). Therefore, stricter takeover law, by reducing the agency problem in a takeover bid, should generate a higher takeover premium.

Combining the above aspects of information disclosure, free riding, equal opportunities, improved bargaining power of minority shareholders and reduced agency problems, we propose the following hypothesis:

Hypothesis 1: The stricter the takeover law, the higher the takeover premium paid to target shareholders.

While takeover premiums present the bidder's willingness to pay, announcement returns reflect the market expectation of wealth generation and wealth transfer in takeovers. Increased premiums translate into higher welfare for target shareholders only under additional assumptions. Actual wealth gains depend on the likelihood of additional post-announcement premium adjustments by the bidding firm as well as the chance for a successful completion of the transaction. Rational investors will factor these probabilities into their assessment of the target firm's share price. A comparison of announcement returns and premiums provides insights into the importance of takeover law for actual wealth gains and the expected success probabilities of takeovers. As discussed before, a stricter takeover law provides better protection to target shareholders in the context of information disclosure, equal opportunities and defensive tactics available to target management. Accordingly, investors perceive a stricter

⁷ State anti-takeover regulation is different in this context due to the history of corporate governance system in the U.S.A. and the large proportion of hostile transactions.

takeover law as a positive signal to the market, which will lead to higher returns to target shareholders. We therefore posit the following:

Hypothesis 2: Stricter takeover law will result in higher target announcement returns.

The two conflicting objectives of takeover law imply that rules limiting the opportunity of a bidder to launch a bid, as discussed before, may result in wealth losses for the bidding firms due to the increased legal barriers. Jarrell and Bradley (1980) suggest that, under takeover regulations which increase the competition from rival bidders, potential bidders hardly have any incentive to launch a takeover bid in the first place and the takeover gains to the bidders could be substantially reduced. Some scholars argue that better protection of the rights of the minority shareholders, such as the mandatory bid rule, eliminates the inefficient control transfer at the cost of discouraging more efficient control transfers (Bebchuk, 1994; Bergström and Högfeldt, 1997; Bergström, Högfeldt, Molin, 1997; Berglöf et al., 2003; Burkart and Panunzi, 2003; Goergen et al., 2005). By setting a lower threshold of the mandatory bid rule, it makes the transactions more expensive to acquiring firms, which could decrease the chance of the value-creating restructuring (Bebchuk, 1994; Burkart and Panunzi, 2003). With increased bargaining power of minority shareholders, the sell-out rights rule could have a negative impact on the likelihood of the value-creating takeovers because it could reduce the gains of bidding firms (Goergen et al., 2005). In addition, stricter takeover law could result in wealth transfers from bidders to targets because most of the gains are “free-riding” by the target shareholders (Grossman and Hart, 1980). Accordingly, we suggest the following hypothesis:

Hypothesis 3: The implementation of a stricter takeover law results in lower announcement returns to bidders.

A well-regulated takeover market creates wealth for society by allocating the productive resources in an efficient way (Ferrarini, 2000; Berglöf and Burkart, 2002; Armour et al., 2007; Ferrarini and Miller, 2010). As we discussed before, target announcement returns can be higher due to improved efficiency, increased bargaining power, or better protection from takeover regulation; while bidding companies may lose relative market value proportionately due to wealth transfers to target shareholders, increased legal barriers, or merger arbitrage shorting selling (Mitchell et al., 2004). Therefore, the combined target-plus-bidder announcement return should reflect the total wealth effects of takeover law if takeover laws succeed in protecting the welfare of minority shareholders and promoting the efficient allocation of economic resources. Accordingly, we propose the benefits of a stricter takeover law outweigh the costs in the following hypothesis:

Hypothesis 4: The implementation of a stricter takeover law increases the weighted total announcement returns in target and bidding firms.

3. TAKEOVER LAW INDEX

3.1 Constructing the takeover law index

Constructing a takeover law index is meaningful from a law and finance perspective as it provides a direct and systematic comparison of takeover law through time and across countries. With the exception of Nenova's (2003) cross-sectional indices for the development of takeover law, no indices exist that comprehensively capture regulations relevant in takeovers.⁸ Unlike

⁸ Nenova (2003) examines the control block premium by considering the impact of takeover regulation, where takeover regulation is proxied by three variables in 1997.

the static takeover law index proposed by Nenova (2003), we construct the index in a dynamic form in this study because the law regulating takeovers has substantially changed in the past two decades. The dynamic nature of our index is critical for the identification of economic effects distinct from unobserved cross-sectional country effects.

The choice of components for the takeover law index is not straightforward, because the law executed today may not have been applicable 10 or 20 years ago. In addition, the selection of takeover law provisions should represent the effect of takeover law provisions across different countries and not draw from a particular country's perspective. Therefore, we consider the most critical provisions associated with the central elements in a takeover law, for example, information disclosure, equal opportunities and management position in a takeover.

The choice of the components of our takeover law index is based on the function of takeover law and the procedure of a takeover bid in practice.⁹ Specifically, this study focuses on six crucial takeover law provisions in the construction of the index: ownership disclosure thresholds,¹⁰ the mandatory bid rule, the fair price rule (or equal opportunity rule) for minority shareholders, squeeze-out rights, sell-out rights, and management neutrality. These six provisions are critical in a takeover bid because they directly determine the bidder's incentive to make a takeover bid and the target's acceptance of a bid. To this end, considering these provisions effectively captures the conflicts of interest between targets and bidders, minority and majority shareholders, and shareholders and managers in the case of a takeover bid.

Another complex issue in coding and weighting any legal rules is to what extent we should code a rule to better reflect the diversity and the quality of the rules. The six takeover law

⁹ In practice, before a bidder attempts to make a takeover bid, the acquirer needs to consider at least five critical thresholds regulated by the target country. These thresholds are related to ownership disclosure (e.g., 2% in Italy), mandatory bid thresholds (e.g., 30% in the U.K.), effective control of the target firms (e.g., 50% in Germany), squeeze-out rights by acquirers above a certain ownership stake (e.g., 90% in Sweden) and sell-out rights by minority shareholders (e.g., from 95% in France).

¹⁰ The requirement of the ownership disclosure varies in European countries. The EU decisions eliminate the differences in the national legislation and harmonize the regulation of the ownership disclosure in European countries, particularly Directive 88/627/EEC, Directive 2001/34/EC and Directive 2004/109/EC. For the detail of the above mentioned Directive, please go to the official website of the European Union, europa.eu.

provisions in the index evolve over time and present great variation. To better capture the effect of the rules in practice, individual takeover law provisions are normalized in the range zero to one with various values to capture the difference and the complexity of takeover law provisions when it applies. For example, we set the index component for ownership disclosure equal to one if the shareholders have to disclose ownership when owning at least 3 percent of the company's capital, equal to 0.75 if this threshold is 5 percent, equal to 0.5 for a 10 percent threshold, equal to 0.25 if the threshold is 25 percent and zero otherwise. Table 2 defines the coding of takeover law provisions.

[Table 2 about here]

In coding the index, we take into account takeover law and regulation, companies law, securities laws, and stock exchange regulations. The raw legal data are derived directly from the primary legislation in a given country (i.e., laws, regulations and decrees).¹¹ The takeover law index is calculated as the sum of the six takeover law components. The squeeze-out rule is coded in reverse (minus one if there is a squeeze-out rule in place and zero otherwise), because we expect squeeze-out threshold defined by law to benefit the bidder, contrary to the other takeover law provisions which aim to protect target shareholders. This gives a theoretical total range of [-1, 5]. A higher index score represents a stricter takeover law from the bidder's viewpoint, but a more favorable legal environment for target shareholders.

3.2 The development of EU takeover laws from 1986 to 2010

The quality of takeover laws in European countries has substantially improved over the last 25 years. Figure 1 demonstrates the development of takeover law in the EU. In general, there are

¹¹ Appendix B summarizes the sources of the takeover law provisions. References of the sources in national language are available from authors upon request.

three big turning points between 1986 and 2010. The first improvement occurs in 1989. Before 1989, only a few countries provided a good protection to the target shareholders in the case of a takeover bid. The average score of the takeover law index is 0.86 out of a score of 5 in the year 1988, in which the highest level of protection is provided by the U.K., Denmark and Sweden.¹² The second improvement happens in the late 1990s. With the trend of globalization and the development of the stock market, more takeover bids occurred after 1996, and the number of the takeovers peaked in 2000 (see Table 4). Growing takeover activity might have drawn the attention of regulators to provide an appropriate takeover law to facilitate the market for corporate control and benefit the economy. Simultaneously, the increased number of takeover bids may also have led to a higher demand for an appropriate takeover law to protect the target shareholders.¹³ The third improvement took place after 2006 with the introduction of the European Directive 2004/25/EC. Its adoption in member states generated a significant enhancement of the quality of takeover laws in this period (see Table 3). In 2009, the average takeover law index reached its highest level during the sample period of 3.47.

Our index indicates that takeover laws in EU countries have been substantially improved over the last 25 years, especially in terms of the protection offered to the minority shareholders. The mean value of the takeover law index for the sixteen major European countries was 0.67 (out of a score of 5) in 1986, but it has reached 3.47 in 2010. Despite the increased demand of an appropriate takeover law, there are a number of other factors that could contribute to the evolution of takeover laws in EU countries, such as the trend of globalization, the development of the stock market and the efforts of the European Commission to implement the European Directive 2004/25/EC on Takeover Bids.

¹² The protection for the minority shareholders in Ireland is similar to the UK because the takeovers in Ireland are regulated by the UK City Code before 1997.

¹³ During the collection of takeover regulation, we noticed that there were many letters from the target firms to the regulators which require a particular protection to the target shareholders.

[Figure 1 about here]

To understand better the development and convergence of takeover law in EU countries, it is crucial to understand the attempt of the Commission to harmonize the EU takeover market and set up a minimum regulation at EU level. Of pivotal importance is that, in January 1989, the Commission proposed the 13th Council Directive on company law, which introduced the voluntary codes concerning the takeovers and other general bids. After decades of negotiation, in May 2004, the Directive entered into force, with a requirement for the transposition into the member states' law by May 2006. By providing a minimum harmonization of takeover bids, it positively contributes to the integration of EU capital markets (Wymeersch, 2008).

The key provisions of the Directive require that each member nation shall have a mandatory bid rule in place; while the threshold of the mandatory bid is defined by the member state; national law should contain the provisions for squeeze-out rights and sell-out rights following a successful takeover bid. In addition, the Directive adopts the management neutrality rule and requires that any action to frustrate a takeover bid must be approved by a general meeting of the shareholders. However, the management neutrality rule is optional for member states or companies.¹⁴

Table 3 reports the implementation effect of the Directive on the takeover law index and takeover law provisions for the sixteen major European countries. As shown in Table 3, the implementation of the Directive mainly affects the mandatory bid, the sell-out rights rule and the management neutrality rule in EU countries. In 9 out of 16 countries, the national takeover laws are affected by the implementation of the Directive. Among these countries, Luxembourg,

¹⁴ It is possible for a member state to opt out, but the company may nonetheless decide to adopt it.

Spain and Greece have changed at least three provisions in their national takeover laws to meet the minimum requirement of the Directive.

[Table 3 about here]

4. DATA AND METHOD

4.1 Identification of takeovers

To examine the effect of takeover law, takeovers in EU countries are identified for the period between 1986 and 2010 from Thomson Financial (SDC Platinum). We include all tender offers, mergers and acquisitions, but exclude minority stake purchases, leverage buyouts, privatizations, spin-offs, recapitalizations, self-tender offers, exchange offers and repurchases. This specific period is selected because takeovers started to be prevalent after the 1986 Single Market Act was signed in the European Union. It also covers the evolution of several countries' takeover law both before and after becoming EU member states. The sample meets the following requirements: (1) takeovers, announced between 1986 and 2010, are targeting EU firms; (2) targets are publicly traded firms in a given EU country, while bidders are publicly traded firms around the world; (3) the bidder owns less than 50 percent of the target shares before the deal and intends to own more than 50 percent of the target firm after the transaction; (4) deal value is disclosed and is at least one million US dollars; (5) multiple bids announced within 14 days are excluded from the analysis; (6) bid price is available from Thomson Financial, LexisNexis or the Financial Times; and (7) share prices are available from Datastream. These requirements result in a final sample of 1,273 takeovers, involving the target firms from the sixteen major European countries. The sample takeovers are made by 969 unique bidders, with a total deal value of US\$ 2,151 billion and an average of US\$ 1,690.1 million.

Table 4 highlights the three countries where firms have actively acted as the bidders and the targets: the U.K., France and Germany. The second largest proportion of bidders, with 14 percent, is from the U.S. As can also be seen from Table 4, the market for control grew slowly during the 1990s, developed rapidly from 1997 and peaked with the dot.com boom in 2000. The takeover activities decreased significantly following the burst of the high-tech bubble and the decline of the stock market in 2001. Though there was a slight rebound in 2005, the number of EU takeovers decreased again following the global economic recession in 2008.

[Table 4 about here]

4.2 *Dependent variables*

To examine empirically the impact of takeover law, we employ the takeover premium to measure the returns to target shareholders and the announcement cumulative abnormal returns (CARs) to measure expected gains to bidders and target shareholders. Similar to Rossi and Volpin (2004) and Alexandridis et al. (2012), we calculate takeover premiums as bid price over the share price of the target on the day before the announcement minus one.¹⁵ As shown in Table 4, the mean (median) level of the takeover premium is 31 percent (26 percent) for EU target firms. Similar findings are also reported for the European targets in Rossi and Volpin (2004) and Alexandridis et al. (2012), though previous studies find that the average premium paid to the targets in the U.S. has been between 40 percent and 60 percent (Officer, 2003; Laamanen, 2007; Betton et al., 2008).

To estimate returns to shareholders of both firms involved in the takeover, we follow Martynova and Renneboog (2008b) and calculate the CARs of the bidding firms over the event

¹⁵ We also test share prices four weeks before the announcement alternative in the denominator. Results are qualitatively similar, but weaker, as one would expect if the announcement effect is concentrated in a narrow window around the announcement day.

window $[-2, +2]$ around the takeover announcement, where day 0 is the announcement date. We use a market model with local market indices to calculate the abnormal returns, where parameters are estimated over the period of 260 to 43 trading days prior to the takeover announcement. Table 4 reports that the mean value of the announcement CARs for targets is 17.3 percent, while acquirers earn -0.6 percent on average. To test the overall economic gains for targets and acquirers, we calculate a total CAR weighted by firms' market capitalizations two event days before the announcement. All mean announcement returns are significant at the one per cent level.

Finally, we aim to link takeover premiums to target announcement returns by estimating the likelihood of a successful transaction. This binary success indicator is directly derived from Thomson Financial data on whether a deal was completed. Variable definitions and data sources are summarized in Appendix A.

4.3 Deal features

Deal features that have explained target returns in previous studies are controlled for in our analysis, that is, cash payment method, hostile deals, diversified takeovers, toehold and cross-border transactions (Jensen and Ruback, 1983; Martynova and Renneboog, 2008b; Bauguess et al., 2009; Betton et al., 2009). Cash-only payments constitute a substantial fraction of the sample, with 39.1 percent of takeovers paid by cash only. Hostile takeovers of a public firm are still relatively rare in EU countries, with only 10 percent of takeovers being hostile during the sample period. Before the takeover announcement, bidders, on average, hold 5.4 percent of the target shares, although the median bidder does not own target shares. Cross-border transactions are frequent in our sample (39 percent), which to some extent indicates the European market's integration and the importance of an internationally compatible takeover law.

4.4 Firm characteristics

The market's anticipation of a takeover and the premium paid by the bidder are associated with specific target firm characteristics, such as the pre-announcement firm performance and managerial ability. Based on the previous studies, we include Tobin's Q, cash flow, leverage, financial distress, and target pre-announcement run-up stock price in our regression analysis (Lang et al., 1989; Morck et al., 1990; Servaes, 1991; Moeller et al., 2004; Dong et al., 2006; Bebchuk et al., 2009; Alexandridis et al., 2012; Jensen, 1986; Jarrell and Poulsen, 1989; King and Padalko, 2005; Schwert, 1996; Meulbroek, 1992). Target pre-announcement stock price run-up could reflect public information about the takeovers, an increase in the target's stand-alone value, or illegal insider trading (Jarrell and Poulsen, 1989; King and Padalko, 2005; Schwert, 1996; Meulbroek, 1992). We use the target run-up CAR to proxy for target pre-announcement stock price run-up. Finally, the target industry and country are considered in all the regressions.

Firm accounting numbers are based on the fiscal year before the takeover announcement. The mean level of total assets is US\$ 7.5 billion for the bidders and US\$ 1.4 billion for the targets. The difference of the total assets between bidders and targets is significant at the 1 percent level. Bidders have a higher cash flow ratio than targets, with a statistically significant difference at the 1 percent level. Bidders have a mean age of 15.4 years, significantly older than the target's mean age of 13.2 years.

4.5 Identification strategy

To explore the effect of takeover law represented by a takeover index and individual provisions (our key independent variables) on takeover premiums and announcement returns, we use ordinary least squares regressions. The likelihood that an attempted takeover is successful is estimated using Probit models. To control for the additional factors that might affect these

dependent variables, we include firm characteristics and deal features into our models. Year and country dummies are included in the regressions to control for potentially unobserved year and country effects. We obtain identification of takeover effects from country-year variation in our key independent variables. Since we include country effects and year effects, the remaining country-year variation that is not captured by country and year dummies can be used to estimate the effects of takeover law if we assume that unique variation in country-years is indeed caused by changes in takeover law.

5. THE ECONOMIC EFFECTS OF TAKEOVER LAW

Takeover law could affect the welfare gains in takeovers in various ways. It may increase the bidder's willingness to pay for the target's shares or it may change the likelihood of successful takeovers due to increased or decreased legal complexity in the acquisition process. We test the implication of takeover law by first examining takeover premiums as a proxy for the bidder's willingness to pay. In the second step, we assess the contribution of takeover law to expected gains for target shareholders, which in principle should be moderated by the probability of successful completion of the transaction. An assessment of total shareholder gains for targets and acquirers concludes the analysis.

5.1 Takeover premium

Regression results on the relationship between takeover law and takeover premium are consistent with our hypothesis that the stricter the takeover law, the higher the takeover premium paid to the target shareholders. Model 1 in Table 5 reports a significant and positive effect of stricter takeover law on the takeover premium. The economic significance of the effect of takeover law is substantial. Changing from the weakest protection generated from a takeover law (a takeover index of -1) to the strongest protection (a takeover index of 5) increases the takeover premium by 44 percentage points. While controlling for firm characteristics, deal

features as well as fixed country and year factors in our regression analysis, we can identify a positive effect of takeover law by using the variation in individual country-years. Therefore, the results empirically show that, in practice, takeover law effectively protects the rights of the minority shareholders in the target firms in the case of a takeover bid.

Controlling for year and country effect is important in order not to attribute variation in offer premiums to takeover law when they are caused by macroeconomic trends or unobserved country factors, such as economic development, non-company legal frameworks or cultural aspects. Despite the substantial number of control dummies, coefficients are well behaved with variance inflation factors below 5, which shows that there is enough variation in takeover law to be exploited by our models. At the same time, country and time dummies purge variation unrelated to takeover law, which may improve estimation accuracy. The magnitude of the takeover law effect remains substantial and significant even if year or country dummies or both are excluded (not tabulated) or when heteroskedasticity-robust standard errors are used. As expected, adjusted R-squared drops from 13.8 percent to 8.3 percent if all country and year dummies are excluded.

[Table 5 about here]

As to the control variables, we observe some interesting findings. Specifically, the results show that the run-up CAR significantly increases the takeover premium. A cumulative pre-announcement return of ten percent increases the premium offered by the bidder by 1.7 percent. This is in contrast to Bauguess et al. (2009) whose findings suggest an insignificantly negative effect of run-up CAR on the takeover premium paid to target shareholders. Our results could, therefore, support Jarrell and Poulsen (1989), King and Padalko (2005) and Schwert (1996) who suggest target pre-announcement run-up stock price could reflect positive public

information about the takeovers and an increase in the target's stand-alone value. Consistent with Martynova and Renneboog (2008b) and Alexandridis et al. (2012), we find that hostile takeovers yield much higher premiums than friendly transactions. One explanation for this finding is that hostile offers are much less likely to proceed, hence bidding companies are prepared to pay higher premiums to target shareholders in order to proceed with takeover bids. We will further explore this explanation in regressions of takeover success in Table 7. Cash-only offers are surprisingly unrelated to premiums, although equity payment is usually considered a transaction payment method inferior to cash offers (Jensen, 1986; Mitchell et al, 2004; Martynova and Renneboog, 2008b; Bauguess et al., 2009). However, we find evidence for a positive efficiency effect of cash transactions in combined target-bidder announcement returns, as reported in Table 10 below. Finally, takeovers in which bidders diversify into an industry unrelated to their core business yield smaller premiums. These could be related to smaller gains expected by bidders when entering new industries.

5.2 Takeover law provisions and offer premiums

A natural question to ask is what matters in takeover law? Models 2 to 7 in Table 5 try to answer this question by analyzing the effect of individual takeover law provisions. Among the six takeover law provisions, ownership disclosure is the first single takeover law provision in place in most EU countries, followed by the mandatory bid rule.¹⁶ The general trend is that the squeeze-out rule, the sell-out rule and the management neutrality rule are introduced at a relative late stage, that is, most nations implement these three provisions during the late 1990s. With the development of takeover law, by the year 2010 most countries have the ownership

¹⁶ The statistics of the takeover law provisions, not reported, show that 44% of the EU countries have the ownership disclosure provision as their first single takeover regulation. If we consider a joint implementation of ownership disclosure as their first takeover rule, this number rises to 88%. Furthermore, we find that, though only 6% of the EU countries implement mandatory bid rule provision as their first single takeover rule, the joint implementation of mandatory bid rule is 44%.

disclosure, the mandatory bid rule and the fair price rule in place while some countries still have not implemented the squeeze-out rights rule, the sell-out rights rule and the management neutrality rule in their takeover regulation. Therefore, our sequence of model is built upon the general time order of takeover provisions as introduced in practice in order to investigate their combined economic implications, as reported in Table 5 (models 2 to 7).

The results for individual provisions in Table 5 reflect that the effect of the mandatory bid rule is significant and substantial. Interestingly, ownership disclosure does not increase offer premiums, although the estimated coefficient is substantial. The insignificant coefficient seems not to be due to this provision's coding, as the effect is still insignificant if coded as a simple indicator for the presence or absence of a disclosure rule, regardless of its threshold.

The mandatory bid rule gives the minority shareholders an opportunity to exit the company in the case of a takeover. Consistent with our expectation, the result provides strong evidence that the mandatory bid rule has a significant and positive impact on the takeover premium. In terms of the economic significance, the takeover premium paid to the target shareholders would be 24 percent higher when there is a mandatory bid rule. Our finding is in contrast to the negative effect of the mandatory bid rule on takeover premiums found by Rossi and Volpin (2004) because they use the mandatory bid rule in 1995 in their study, which cannot distinguish true differences between countries from the reform of takeover law over time. Therefore, we contribute to the extant literature by providing timely empirical evidence that the mandatory bid rule protects the minority shareholders in a takeover bid as predicted theoretically by Bebchuk (1994), Macey et al. (1995), Skog (1997), Bergström and Högfeldt (1997), Burkart (1999), Ferrarini (2000), Berglöf et al. (2003), Goergen et al. (2005), and Ferrarini and Miller (2010).

When we add in the fair price rule in model 4, the effect of the mandatory bid rule increases by 4 percentage points if the ownership disclosure rule, the mandatory bid rule and the fair price

for minority provision are included. The fair price rule is often introduced in combination with a mandatory bid rule, as its aim is to protect minority shareholders in a takeover bid. However, we find a negative effect of the fair price rule on takeover premium, but it is statistically insignificant.

Models 5 and 6 examine the impact of squeeze-out rights and sell-out rights on the takeover premium. The squeeze-out rights rule aims to allow the majority shareholders to squeeze out the minority shareholders and mitigate the free-rider problem (Yarrow, 1985); therefore, we expect a negative relationship between the squeeze-out rights rule and the takeover premium. The coefficient of the squeeze-out rights rule is negative, but it is far from statistically significant. This result suggests that bidders see the possibility of a squeeze-out as a neutral with respect to the costs of a takeover. The sell-out rights rule, on the other hand, reduces the pressure of the minority shareholders to tender and gives the minority shareholders the right to exit the company before the bidders take full control of the company (Burkart and Panunzi, 2003). We may therefore expect a positive relationship between the sell-out rights rule and the takeover premium. The results show an insignificant but negative effect of sell-out rights on premiums. In summary, the squeeze-out and sell-out rules may lead to transfers of wealth between tendering and non-tendering target shareholders, which leave the total cost to bidders unaffected.

We explore the combined effect of all six takeover law provisions in model 7 in table 5. The mandatory bid rule significantly dominates all other takeover provisions with a substantial and economically positive effect. More specifically, takeover premiums would be 53 percent higher under the mandatory bid rule, which is much higher than the corresponding coefficient in model 3 which includes the ownership disclosure rule and the mandatory bid rule. The effect of the squeeze-out rights rule is negative as expected, but still insignificant. Similarly, both fair-price rule and sell-out rights seem to be more costly for bidders and decrease premiums in a

simultaneous setting, but remain insignificant. The management neutrality rule, however, seems to work in favor of target shareholder in encouraging higher offers from bidders. The effect is substantial, but insignificant, potentially because the management neutrality rule effectively reduces the potential agency problems in a takeover bid (Bebchuk, 2002; McCahery et al., 2003; Goergen et al., 2005) or due to limited historical data considering the relatively late introduction of managerial neutrality into national takeover law.

5.3 Do higher offer premiums mean higher returns to shareholders?

Premiums offered by bidders in takeovers should have a proportional effect on expected wealth gains to target shareholders as measured by excess stock returns around the day the takeover is announced. In principle, a higher price offered to target shareholders will correspond to a higher gain only if the offer is not withdrawn due to, for example, external factors or anti-takeover action by the target's management. Conversely, final gains to target shareholders may be higher than the original offer price if the bidder is forced to enhance the offer during the takeover negotiation process. By comparing announcement returns and premiums, we obtain insights into the importance of takeover law for actual wealth gains and the expected success probabilities of takeovers. We test the empirical relationship between offer premiums and shareholder wealth gains by estimating the impact of takeover law on announcement returns in Table 6 and takeover success in Table 7.

A path from takeover law to improved takeover premiums to higher announcement returns is difficult to establish if we compare the effect of takeover law on both outcome variables. We find that the coefficient of takeover law index on target announcement returns is reduced to 4.215 from its effect of 7.308 on takeover premium, but remains significant at the one-percent level. The decreased coefficient suggests that a large proportion of the total effect on CARs indirectly results from higher takeover premiums.

When investigating the relevance of takeover law, it is instructive to identify the heterogeneous impact of takeover law provisions on target announcement returns. On the one hand, and in the light of its effect on takeover premiums, the ownership disclosure rule significantly increases expected target CARs while the mandatory bid rule is insignificant in the model for target CARs. On the other hand, in a simultaneous setting, rules that increase takeover premiums do not at the same time increase announcement returns for target shareholders. While the mandatory bid rule is the only provision significantly explaining takeover premiums in a model using all six provisions simultaneously, it gives way to the ownership disclosure rule when explaining target CARs, which significantly increases target CARs by 17 percentage points.

[Table 6 about here]

If higher premiums do not proportionately increase announcement returns, a difference in the probability for a successful takeover might be the reason for a differential effect of certain rules on premiums and returns. This theory receives no support in our findings in Table 7. Effects on the likelihood of a successful takeover are insignificant for the set of rules that increase premiums or returns. This finding suggests that higher premiums translate directly into wealth gains for target shareholders without takeover provisions moderating the likelihood of a successful takeover. On the other hand, we find a slightly significant increase in the likelihood of success for takeovers under the sell-out rule, which should lead to higher announcement returns in takeovers announced under this rule. Since there is not such effect, we suspect that the binary nature of our Probit regressions for takeover success leads to high estimation uncertainty and imprecise coefficients in either the models for takeover premiums or models for announcement returns.

[Table 7 about here]

The findings in Table 6 suggest that a large proportion of the total effect on CARs could indirectly result from higher takeover premiums. To gain further insight into the relationship between takeover law, takeover premiums and target CARs, we perform a mediation test for takeover premiums. Our findings in Table 8 indicate that takeover law acts on target announcement returns through the offer premium. The competing hypothesis is that takeover law acts directly on target CARs. The takeover index satisfies the relevance criterion by significantly predicting offer premiums, as we have shown in Table 8. Premiums in turn predict announcement returns, with the strongest effect on target CARs as expected and weaker effects on bidder CARs and weighted CARs. Sobel mediation tests are significant for target and weighted CARs, but not for bidder CARs. This confirms the expectation that takeover law increases announcement returns mainly through its effect on offer premiums. Interestingly, takeover law also seems to have a direct effect on weighted and bidder CARs. Despite the reduced sample size compared with our main models due to missing values in the offer premium, the effect of takeover law on weighted CARs is significant at the 5-percent level and its effect on bidder CARs is significant at the 10-percent level.

[Table 8 about here]

Control variables paint a similar picture of the relationship between takeover premiums, takeover probability and target announcement returns. Target size and Tobin's Q of the target predict both premiums and announcement returns with a corresponding absence of an impact on takeover success as in the case of takeover provisions. Announcement return and premiums

are much higher in hostile takeovers than in friendly transactions, but this effect is less pronounced for announcement returns. This finding is consistent with the results that hostile takeovers are also much less likely to succeed, reducing the expected gain for target shareholders given the premium offered. Diversification and run-up do not significantly increase CARs, while the bidder's toehold significantly reduces CARs to target shareholders. In addition, takeovers with larger bidders and bidders with a higher cash flow tend to increase expected returns for target shareholders. This might be the results of takeovers being more successful with these bidders. We find partial support for this hypothesis: there is a higher likelihood of a successful takeover for larger bidders, but cash flow is not significant in Table 7.

5.4 Returns to bidders and total wealth effects

As the results thus far demonstrate that takeover law protects minority shareholders in target firms, this section addresses the question whether target shareholders gain at the expense of bidders, that is, whether stricter takeover law significantly reduces the returns to the bidders in a takeover bid. We further explore whether higher expected returns may be derived from more efficient takeover regulations, corresponding to a net social welfare gain that is shared between targets and bidders.

We start our analysis by investigating the effect of takeover law on the announcement CARs to bidders, followed by examining the effect of individual takeover law provisions. The evidence in Table 9 suggests that the effect of takeover law on bidders' CARs is insignificant, even after controlling for the other potential factors which might affect the returns to the bidders. In terms of the effect of takeover law provisions, the squeeze-out rights rule gives majority shareholders the right to squeeze out the minority shareholders in order to mitigate the free-rider problem (Yarrow, 1985). Hence, we expect a positive relationship between the squeeze-out rights rule and bidders' CARs. Interestingly, the results show a statistically insignificant but negative effect on bidder's CARs.

[Table 9 about here]

Bebchuk (1994) argues that, by setting a lower threshold of the mandatory bid rule, it makes the transactions more expensive to acquiring firms. Goergen et al. (2005) maintain that the sell-out rights rule could reduce the gains to bidding firms because it reduces the pressure of the minority shareholders to tender and provides them the right to exit the company before the bidders take full control of the company. In addition, stricter takeover law could result in a wealth transfer from bidders to targets, because most of the gains are “free-riding” by the target shareholders (Grossman and Hart, 1980). However, we find there is no significant effect of these takeover law provisions on bidder’s announcement returns.

To summarize, in contrast to these arguments and to our hypothesis, the results suggest that stricter takeover law does not hurt bidders in practice. In other words, takeover laws function well in respect to the wealth distribution of targets and bidders in a takeover bid.

To measure the overall wealth effects from takeover regulation, we calculate the combined target and acquirer announcement returns, weighted by market capitalization. This procedure assumes that social welfare gains are reflected by expected announcement returns to rational, unbiased residual claimants in takeovers, ignoring other potential stakeholders, such as bond holders, or external effects on the public.¹⁷

Our results show that total wealth effects increase in takeovers announced in country-years with a stricter takeover law, as shown in Table 10. This combined wealth effect of increased weighted announcement returns for targets and bidders is associated with the ownership

¹⁷ The complexities of takeovers in practice have been recognized among practitioners and academics. Using share price information to measure the wealth effect of takeovers is one of the most widely used methods among scholars (Cuñat et al., 2012; Sokolyk, 2011; Giroud and Mueller, 2010; Schouten and Siems, 2010; Bris and Cabolis, 2008; Martynova and Renneboog, 2008b; Armour et al., 2007; Faleye, 2007; Wald and Long, 2007; Rossi and Volpin, 2004; Daines, 2001; Garvey and Hanka, 1999; Comment and Schwert, 1995).

disclosure rule and – to a lesser extent – with the mandatory bid rule. Regulation that was introduced later in time, such as squeeze-out or sell-out rights, has no detectable effect on total shareholders' wealth. Government regulation of takeovers may exhibit decreasing returns which become more difficult to detect if more rules are added to an existing regulatory framework. We test this hypothesis by including the square of the takeover law index. Effects on our dependent variables are all insignificant,¹⁸ but coefficients on the squared term are negative for target, bidder and weighted announcement returns as is expected under decreasing returns to regulation.

[Table 10 about here]

The results are consistent with our hypothesis that a stricter takeover law increases shareholder wealth for the combined firm. In other words, stricter takeover laws succeed in protecting the welfare of minority shareholders and promoting the efficient allocation of productive resources. Our finding contributes to the extant literature (Jensen and Ruback, 1983; Moeller et al., 2004; Bauguess et al., 2009) by providing empirical evidence that a stricter takeover law is an important determinant to the positive and significant weighted announcement returns to bidders and targets. In addition, we document both direct and indirect effects of takeover law on combined shareholder wealth. Table 8 shows that offer premiums mediate the effect of takeover law and in turn act on announcement returns. However, we also detect direct and positive effects on bidder announcement returns and combined wealth.

¹⁸ Results are available from the authors on request.

6. ROBUSTNESS

6.1 Investor protection

The seminal work of La Porta et al. (1998) has highlighted the importance of investor protection for corporate finance. Recently, the effect of investor protection laws on mergers and acquisitions has been examined (Rossi and Volpin, 2004; Starks and Wei, 2004; Bris and Cabolis, 2008; Martynova and Renneboog, 2008b; Kuipers et al., 2009; Danbolt and Maciver, 2012). Other literature has examined wealth effects in mergers and acquisitions across countries and over time as well as in relation to the acquirer's and target's attributes such as corporate governance (Harford et al., 2012; Bhagat et al., 2005). To verify the contribution of this paper, we test whether existing investor protection indices are able to capture a similar degree of variation in premiums and announcement returns as the takeover index we construct.

As a robustness test, we employ the shareholder rights index and the creditor rights index from Martynova and Renneboog (2011a). The shareholder rights index measures the level of protection for the shareholders against managerial opportunistic behaviour, while the creditor rights index measures the protection given to creditors in the case of bankruptcy. Neither of these two indices is able to significantly explain announcement returns if added to model 1 in Tables 6, 9 and 10. Both indices are significant, but statistically weaker than the takeover law index, in regressions of takeover premiums. Shareholder protection contributed positively to premiums, while higher creditor protection reduces premiums offered by bidders. Our takeover index may be better able to explain expected returns as it reflects the actual takeover process than broad investor protection indices.

6.2 The total wealth effects of takeover law for non-UK targets

Table 10 shows that the overall wealth effect of a stricter takeover law on the weighted announcement returns of bidders and targets is positive and significant. However, Figure 1 may

draw our attention to a specific feature of the development of takeover law in the UK. Amongst the sixteen major European countries, a high and constant level of protection for the minority shareholders (measured by the mean value of the takeover law index) is provided by the UK. Since our identification strategy is relies on country-year variation, one might suspect that the results are driven by the takeover law in the UK or the dominance of the UK targets in our dataset.

[Table 11 about here]

Table 11 reports the total wealth effects of takeover law for non-UK targets. It is interesting to find that the wealth effect of a stricter takeover law is statistically significant and economically larger when we exclude the UK targets in our analysis. Consistent with the findings in Table 10, the ownership disclosure rule and the mandatory bid rule increase the total wealth of the combined company. Notably, the wealth effects of both provisions are significantly higher when we exclude the UK targets. The coefficient of the ownership disclosure rule increases from 7 percentage points in Table 10 to 15 percentage points in Table 11, while the coefficient of the mandatory bid rule rises from 6 percentage points in Table 10 to 10 percentage points in Table 11. The results are consistent with our hypothesis and, to some extent, reduce our concern about a potential degree of correlation between country effects, time effects and takeover law. Identification of economic effects for the non-UK targets validates our findings, since there is sufficient country-year variation that is not already captured by country or year effects alone. Therefore, our dataset can identify the effects we hypothesize, but we would encourage future research to build upon our results.

Table 11 further reveals some interesting findings regarding the other takeover law provisions. Table 10 reports insignificant but negative coefficient for the fair price rule and the

squeeze-out rights rule, while Table 11 shows that, excluding the UK targets, the fair price rule and the squeeze-out rights rule significantly reduce the total gain of the bidders and targets. In this context, the fair price rule reduces the weighted announcement returns by 6 percentage points, whilst the gain enjoyed by the combined company decreases by 4 percentage points. In other words, our results suggest that the fair price rule and the squeeze-out rights rule make the takeovers more expensive for bidders.

7. CONCLUSION

The debate concerning an appropriate takeover regulation has been ongoing since the late 1960s, when U.S. and the U.K. simultaneously introduced their first takeover laws. In the following four decades, policymakers and regulators have aimed to provide a takeover law that protects shareholders in a takeover bid whilst facilitating the market for corporate control and maintaining the integrity of financial markets. This study contributes to the extant literature (Jensen and Ruback, 1983; Moeller et al., 2004; Bauguess et al., 2009) on takeovers by investigating the development of takeover laws in European countries and demonstrating that takeover law plays an important role in determining wealth gains and transfers in acquisitions. To capture the quality of a takeover law in a given country, we construct a sensitive and rich takeover law index in a time-varying form for 16 European countries over the last 25 years. In particular, the takeover law index considers six key takeover law provisions, namely, ownership disclosure, mandatory bid rule, fair price for the minority shareholders, squeeze-out rights, sell-out rights and management neutrality. The wealth effects of takeover law are examined using takeovers in European countries in the period 1986–2010.

There are three main conclusions emerging from this study. First, the dynamic takeover law index reflects how takeover laws have substantially improved over the last 25 years in the EU. Second, this study provides strong evidence that stricter takeover law protects the rights of the minority shareholders in target firms in the case of a takeover bid, as the effect of takeover

law on the takeover premium and announcement returns is positive, statistically significant and economically large. This result seems to be driven by the mandatory bid rule and the ownership disclosure rule. Third, we find that stricter takeover law does not reduce the announcement CARs to the bidders and increases the combined expected gains from takeovers for targets and bidders. Our results suggest that the ownership disclosure rule and the mandatory bid rule increase the total gain enjoyed by the combined company, while the fair-price-to-minority rule and the squeeze-out rights rule may make the takeovers costly and reduce the total wealth for bidders and target. Since an estimation of takeover frequency is beyond the scope of this paper, future research may complete the picture and investigate whether a stricter takeover law discourages bids and whether this reduces the overall beneficial effect of takeover regulation that we find.

APPENDIX

Appendix A: Variable Definitions

Variable	Definition
Age	Age, in the logarithm, is the number of years on the day of the announcement since the firm was first covered by the Stock Exchange in a given country. Source: Datastream and Worldscope.
Bidder CARs	Bidder CARs are the announcement cumulative abnormal returns (CARs) of the bidding firms, calculated as the CARs of the bidding firms over the event window [-2, +2] around the takeover announcement, where day 0 is the announcement date. The abnormal returns are calculated using the market model, where the market index is the local index or MSCI World index. Parameters of the market model are estimated over the period of 260 to 43 trading days prior to the takeover announcement. Source: Datastream.
Cash Flow	Cash flow ratio is calculated as the cash flow from operations over the total assets at the end of fiscal year before the takeover announcement. Source: Datastream and Worldscope.
Cash-only Transaction	A dummy variable takes a value of one if the takeover is fully paid with cash, and is zero otherwise. Source: Thomson Financial, LexisNexis, and Financial Times.
Diversification	A dummy variable takes a value of one if the target and the acquirer operate in different industries (the primary 2-digit SIC codes are different), and is zero otherwise. Source: Thomson Financial, LexisNexis, Financial Times and Worldscope.
Financial Distress	A dummy variable equals one if net income of the target firm is zero or negative in the year preceding the announcement of the deal, and is zero otherwise. Source: Datastream and Worldscope.
Hostile	Hostile is a dummy variable that takes a value of one if the target management reacts negatively to the initial takeover offer but the bidder persists with the takeover. Source: Thomson Financial, LexisNexis, and Financial Times.
Leverage	Leverage ratio is calculated as the total debt (long-term and short-term) to the total assets over the fiscal year prior to the takeover announcement. Source: Datastream and Worldscope.
Run-up CAR	Run-up CAR is calculated as the cumulative abnormal returns (CARs) of the firms over the window [-43, -2] prior to the takeover announcement, where day 0 is the announcement date and days are measured in trading days relative to the announcement date. The abnormal returns are calculated using the market model, where the market index is the local index or MSCI World if a local market index is not available. Parameters of the market model are estimated over the period of 260 to 43 trading days prior to the takeover announcement. Source: Datastream.
Takeover Law Index	The takeover law index measures the quality of takeover law in a given country. It takes the value of the accumulation of six variables, as defined in Table 2: (1) ownership disclosure, (2) mandatory bid, (3) fair price for the minority shareholders, (4) squeeze-out rights; (5) sell-out rights; and (6) management neutrality. The index ranges from minus one to five. A higher value indicates a stricter takeover law. Source: Country's Takeover Law and Regulation, Companies Law, Securities Laws, and Stock Exchange Regulation. Own construction.
Takeover Premium	The takeover premium is calculated as the ratio of offer price to target closing stock price 1 day prior to the original announcement date, minus one, expressed as a percentage: $(\text{offer price} / \text{share price at } t-1 - 1) \times 100$. Source: Thomson Financial, LexisNexis, Financial Times, and Datastream.
Tobin's Q	Tobin's Q is calculated as the market value of the total assets divided by the book value of the total assets, where the market value of the total assets is equal to the market value of equity plus the book value of total debt. The market value of equity is the value two months prior to the takeover announcement, book value of total assets and total debt are the values at the fiscal year end prior to the takeover announcement. Source: Datastream and Worldscope.
Toehold	Toehold is the percentage of the target shares that the bidder owns in the target firms prior to the takeover announcement. Source: Thomson Financial, LexisNexis, and Financial Times.

Appendix B: Sources of the Takeover Law Index for European Countries, 1986–2010

Country	Sources
Austria	Companies Act 1965; Stock Exchange Act of 1989; Takeover Law 1998; Stock Exchange Act of 1989 as amended on June 26, 2006; Takeover Law 2006. Current regulator: Vienna Stock Exchange, Austrian Financial Market Authority, Takeover Commission.
Belgium	The Law of 2 March 1989; Takeover Decree 1989; Companies Act 1995; Takeover Act 2007; Takeover Decree 2007; Transparency Law 2007. Current regulator: The Belgian Banking, Finance and Insurance Commission (CBFA).
Czech Republic	Civil Code 1963; Commercial Code 1991; Commercial Code 1996; Commercial Code 2000; Capital Market Act 2004; Takeover Law 2008. Current regulator: The Czech National Bank (CNB).
Denmark	Companies Act 1985; Code of Ethics 1987; Securities Trading Act 1995; Securities Trading Act 1999; Order on Takeover Bids 2005; Takeover Act 2006; Companies Act 2006; Securities Trading Act 2008; Companies Act 2009. Current regulator: the Danish Financial Supervisory Authority (FSA).
Finland	Companies Act 1978; Securities Market Act 1989; Securities Market Act 1993; Companies Act 1997; Securities Market Act 1999; Securities Market Act 2006; Companies Act 2006. Current regulator: Finnish Financial Supervision Authority (FSA).
France	Act on Commercial Companies 1966; SEC Decision 1981, Act related to Stock Companies Interests 1985; Act on Commercial Companies 1985; Act on Savings 1987; Financial Market Act 1989; Stock Exchange Order on Takeover Bids 1992; Act on Commercial Companies 2000; Commercial Code 2000; Takeover Act 2006; Order of AMF 2006. Current regulator: Authority of Financial markets (AMF).
Germany	Companies Act 1965; Securities Trading Act 1994; Takeover Code 1995; Takeover Act 2001; Takeover Offer Regulation 2001; Takeover Act 2006; Transparency Directive Implementation Act 2007. Current Regulator: Federal Financial (BaFin).
Greece	Companies Act 1920; Decree on Information Disclosure 1992; Stock Exchange Decision 2000; Takeover Decision 2002; Takeover Act 2006; Transparency Law 2007. Current Regulator: The Hellenic Capital Markets Commission (CMC).
Ireland	Companies Act 1963; the UK takeover law index for the period 1986-1996; Companies Act 1990; Takeover Act 1997; Takeover Regulations 2006; Transparency Regulation 2007; Takeover Rules 2007; Transparency Rules 2009. Current regulator: The Irish Takeover Panel.
Italy	Securities Market Law 1974; Public Offer Regulation 1992; Financial Act 1998; Amendment of Consolidated Financial Act 2007. Current regulator: National Commission for Companies and Stock Exchange (CONSOB).
Luxembourg	Companies Act 1915; Companies Act 1987; Law on Information Disclosure in a Listed Company 1992; Takeover Act 2006; Transparency law 2008. Current regulator: Luxembourg Financial Services Authority (CSSF).
Netherlands	Civil Code Book 2 1958; Amendment of regulating the transfer of shares in Civil Code Book 2 1988-1989; Introducing buy-out minority interests in Civil Code Book 2 1984-1985; Disclosure Act 1992; Disclosure Act 1996; Disclosure Act 2006; Financial Supervision Act 2006; Takeover Act 2007. Current regulator: The Netherlands Authority for the Financial Markets (AFM).
Portugal	Commercial Code 1986; Securities Market Code 1991; Securities Market Code 1995; Securities Market Code 1999; Securities Market Code 2006. Current regulator: Portuguese Securities Market Commission (CMVM).
Spain	Takeover Decree 1980; Securities Market Act 1988; Act on Public Bid 1991; Securities Market Act 2007; Takeover Decree 2007, Transparency Act 2007. Current regulator: National Securities Market Commission (CNMV).
Sweden	NBK Recommendations 1971; Act on Acquisitions 1982; Securities Market Act 1985; Securities Council Statement 1986; Financial Instruments Trading Act 1991; NBK Recommendations 1994; NBK Recommendations 1999, NBK Rules 2003; Companies Act 2005; Takeover Rules 2006; Takeover Act 2006. Current regulator: The Swedish Industry and Commerce Stock Exchange Committee (NBK), the Swedish Financial Supervisory Authority (FSA).
United Kingdom	Companies Act 1985; Takeover Code 1985; Companies Act 1989; Takeover Code 2006, Companies Act 2006. Current regulator: The UK Panel on Takeovers and Mergers (the Panel).

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FIGURES AND TABLES

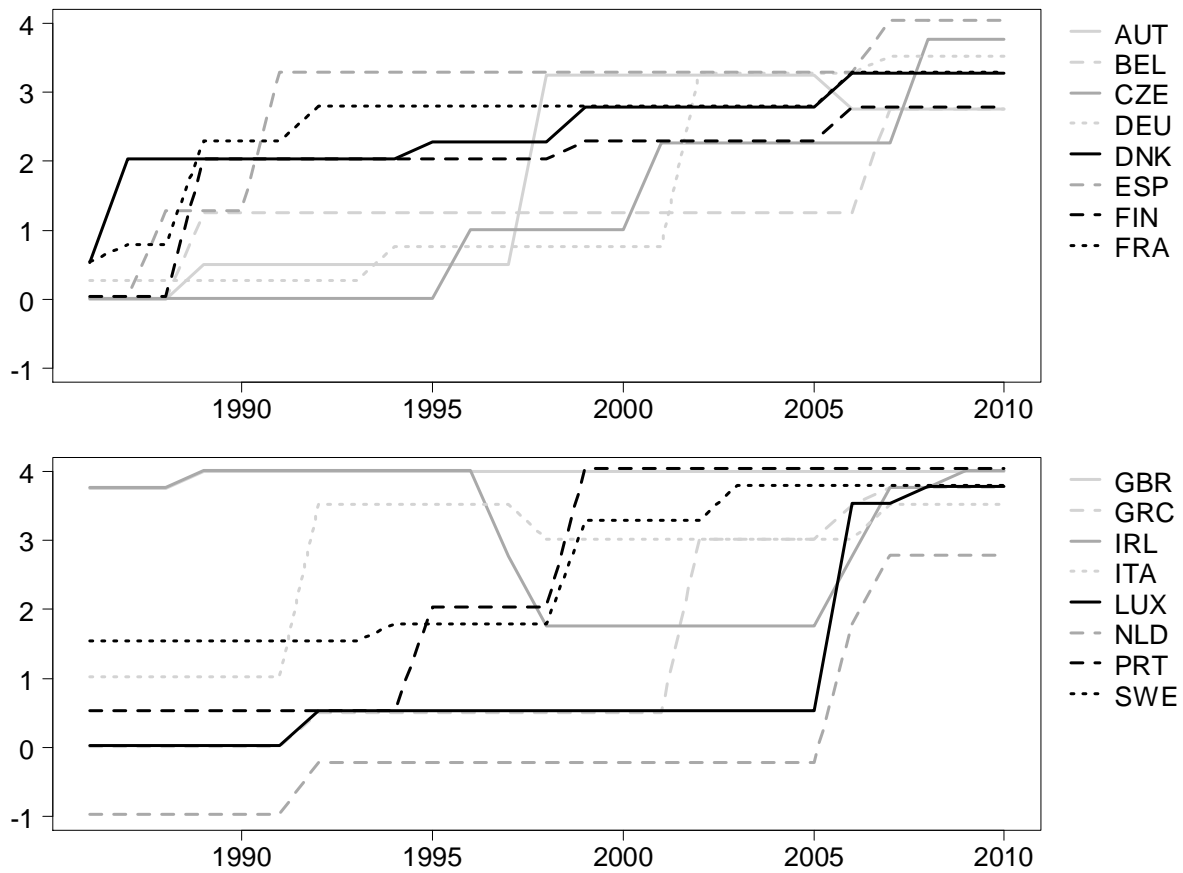


Figure 1. Takeover law index for European countries, 1986-2010

This figure reports, in alphabetical order, the takeover law index for the major European countries during 1986-2010. The takeover law index measures the quality of takeover law in a given country. It takes the value of the accumulation of six variables, as defined in Table 2: (1) ownership disclosure, (2) mandatory bid, (3) fair price for the minority shareholders, (4) squeeze-out rights (negatively coded); (5) sell-out rights; and (6) management neutrality. Theoretically possible index values are in the range [-1, 5]. A higher value indicates a takeover law more favourable for target shareholders. Source: Country's Takeover Law and Regulation, Companies Law, Securities Laws, and Stock Exchange Regulation; own construction. Lines are slightly offset from their actual values by at most 0.05 to help distinguish lines that would otherwise overlap.

Table 1. Summary of main findings

This table summarises our findings for takeover premiums (column “Premium”), announcement returns for target shares (“Target CAR”), announcement returns for acquirers (“Bidder CAR”), weighted target-acquirer announcement returns (“Weighted CAR”) and likelihood of observing a successful takeover (“Success”) in simultaneous (“Simult.”) and separate (Indiv.”) regressions. Plus and minus signs indicate the coefficient’s direction, while their number indicates significance: +++, ++, + stand for 1%, 5% and 10% significance, respectively, and likewise for negative coefficients.

	Premium		Target CAR		Bidder CAR	
	Indiv.	Simult.	Indiv.	Simult.	Indiv.	Simult.
Takeover index	++	n/a	+++	n/a		n/a
Ownership disclosure			++	+		
Mandatory bid	+++	+++	++			
Fair price for minority						
Squeeze-out right			–			
Sell-out rights						
Management neutrality						
	Weighted CAR		Weighted CAR (excl. U.K.)		Success	
	Indiv.	Simult.	Indiv.	Simult.	Indiv.	Simult.
Takeover index	+	n/a	++	n/a		n/a
Ownership disclosure	++	++	+++	+++		
Mandatory bid	++	++	+++	+++		
Fair price for minority			–	– –		
Squeeze-out right			–	–		
Sell-out rights					+	
Management neutrality						

Table 2. Coding of takeover law provisions and the impact of takeover law provisions

This table defines the coding of the components of the takeover law index used in this study.

Variable	Definition
Ownership disclosure	Equals 1 if the shareholders who acquire at least 3% of the company's capital have to disclose it; equals 0.75 if this concerns 5% of the capital; equals 0.5 if this concerns 10%; equals 0.25 if this concerns 25%; otherwise zero.
Mandatory bid	Equals 1 if there is a mandatory public bid for the entirety of shares in case of purchase of 30% or 1/3 of the shares; equals 0.5 if a mandatory bid is triggered at a higher percentage (such as 40 or 50 %); equals 0.5 if there is a mandatory bid rule but no specific percentage required; further, it equals 0.5 if there is a mandatory bid but the bidder is only required to buy part of the shares; and equals zero if there is no mandatory bid at all.
Fair price for the minority shareholders	Equals 1 if the mandatory offer is restricted by law to offer some measures of a market price (usually an average price paid for the same securities over a period in the prior six to twelve months); and zero otherwise.
Squeeze-out rights	Equals 1 if the majority shareholders can squeeze the minority shareholders out at a certain level of ownership (usually 90% or more); and zero otherwise.
Sell-out rights	Equals 1 if the minority shareholders can require the majority owner to buy them out at a certain level of ownership (usually 90% or more); and zero otherwise.
Management neutrality	Equals 1 if there is a strict obligation to apply the management neutrality rule in the regulation, 0.5 if there is a management neutrality rule but subject to the reciprocity rule, and zero otherwise.

Table 3. Implementation effect of the EU Directive on the takeover law index and takeover law provisions

This table reports the implementation effect of the EU Directive on the takeover law index and takeover law provisions for the major European countries involving in cross-border takeovers in European countries during 1986–2010. Implementation date is the date that member nations implement the Directive into their national takeover law. The effect of the Directive on takeover law provision takes a value of one if that provision in the member nation must be raised to a higher level to satisfy the minimum standard of the Directive, and zero if that provision remains unchanged or has a higher level than the Directive before the implementation date. The effect of the Directive on the takeover law index takes the value of the average of the effect of the Directive on takeover law provisions. The last column is the number of takeovers in the samples affected by the implementation of the Directive.

	Implementation date	Effect on ownership disclosure	Effect on mandatory bid	Effect on fair price	Effect on squeeze-out	Effect on sell-out	Effect on management neutrality	Average effect on the takeover law index	No. of takeovers in the samples affected by the Directive
Austria	20/05/2006	0	1	0	1	0	0	0.33	2
Belgium	01/04/2007	0	1	0	0	1	0	0.33	8
Czech Rep.	01/04/2008	0	1	0	0	0	1	0.33	1
Denmark	20/05/2006	0	0	0	0	0	1	0.17	4
Finland	08/06/2006	0	1	0	0	0	0	0.17	4
France	20/05/2006	0	0	0	0	0	1	0.17	21
Germany	08/07/2006	0	0	0	0	0	0	0.00	0
Greece	30/05/2006	0	1	0	1	1	0	0.50	3
Ireland	20/05/2006	0	0	0	0	1	0	0.17	3
Italy	19/11/2007	0	0	0	0	1	1	0.33	2
Luxembourg	20/05/2006	0	1	1	1	1	1	0.83	0
Netherlands	24/05/2007	0	0	0	0	1	0	0.17	11
Portugal	02/11/2006	0	0	0	0	0	0	0.00	0
Spain	13/04/2007	1	1	0	1	1	0	0.67	2
Sweden	07/06/2006	0	0	0	0	0	0	0.00	0
UK	20/05/2006	0	0	0	0	0	0	0.00	0

Table 4. Summary statistics

This table reports descriptive statistics for attempted takeovers involving public acquirers and public targets in European countries during 1986-2010. Firm accounting figures are based on the fiscal year data before the takeover announcement. For dummy variables, only the proportion of deals with the relevant attribute is shown in the “mean” column and other summary statistics are omitted. Significance levels for dependent variables: ***, **, * stand for 1%, 5% and 10% significance.

Variable	N	Mean	Median	SD	Min.	Max.
<i>Dependent variables</i>						
Offer premium	1027	30.938***	26.450	36.699	-72.448	225.015
Target CAR [-2,2]	1273	17.338***	12.462	21.512	-37.440	108.239
Bidder CAR [-2,2]	1241	-0.594***	-0.524	7.775	-31.533	25.246
Weighted CAR [-2,2]	1240	2.333***	1.657	7.911	-27.061	34.341
Successful takeover	1273	0.807				
<i>Takeover law variables</i>						
Takeover index	1273	3.308	4.000	1.124	-1.000	4.000
Ownership disclosure	1273	0.884	1.000	0.155	0.000	1.000
Mandatory bid	1273	0.854	1.000	0.317	0.000	1.000
Fair price for minority	1273	0.897				
Squeeze-out right	1273	0.846				
Sell-out rights	1273	0.778				
Management neutrality	1273	0.741	1.000	0.421	0.000	1.000
<i>Deal characteristics</i>						
Deal value	1273	5.232	5.085	1.937	0.402	10.384
Toehold	1273	5.409	0.000	12.044	0.000	50.000
Hostile bid	1273	0.104				
Cash-only transaction	1273	0.391				
Cross-border transaction	1273	0.390				
Diversification	1273	0.443				
<i>Target (T) and bidder (A) characteristics</i>						
(T) CAR run-up	1273	0.089	0.053	0.258	-1.169	2.171
(T) Age	1273	13.224	9.465	10.923	0.287	45.881
(T) Total assets	1273	5.387	5.127	1.897	0.740	10.007
(T) Tobin's Q	1273	1.845	0.793	3.419	0.196	19.093
(T) Leverage	1273	0.204	0.176	0.171	0.000	0.759
(T) Cash flow	1273	0.094	0.107	0.145	-0.692	0.452
(T) Distressed	1273	0.240				
(T) High-tech dummy	1273	0.300				
(A) Age	1273	15.447	13.051	11.100	0.096	45.580
(A) Total assets	1273	6.911	6.892	2.242	1.160	11.665
(A) Cash flow	1273	0.116	0.118	0.106	-0.342	0.458

Table 4. Summary statistics (continued)

This table reports the number of transactions by year, country and SIC division. The sample consists of all attempted takeovers involving public acquirers and public targets in European countries during 1986-2010. The following abbreviations of country codes are used: AUT (Austria), BEL (Belgium), CZE (Czech Republic), DNK (Denmark), FIN (Finland), FRA (France), DEU (Germany), GRC (Greece), IRL (Republic of Ireland), ITA (Italy), LUX (Luxembourg), NLD (Netherlands), PRT (Portugal), ESP (Spain), SWE (Sweden), GBR (United Kingdom) for targets and bidders in EU countries and AU (Australia), CA (Canada), JP (Japan), NO (Norway), SZ (Switzerland), US (United States) for bidders in non-EU countries.

[Canada], J1 (Japan), NO (Norway), SZ (Switzerland), US (United States) for bidders in non-EU countries.															
Year			Nation				SIC division								
Deals							Targets			Bidders					
N %			Targets				Bidders			Targets			Bidders		
			N %				N %			N %			N %		
1986	6	0.5	AUT	13	1.0	11	0.9	1	123	9.7	118	9.5			
1987	11	0.9	BEL	22	1.7	15	1.2	2	215	16.9	236	19.0			
1988	21	1.6	CZE	4	0.3	0	0	3	290	22.8	295	23.8			
1989	17	1.3	DEU	86	6.8	70	5.6	4	143	11.2	160	12.9			
1990	13	1.0	DNK	23	1.8	16	1.3	5	130	10.2	126	10.2			
1991	33	2.6	ESP	35	2.7	39	3.1	6	44	3.5	51	4.1			
1992	26	2.0	FIN	22	1.7	20	1.6	7	271	21.3	223	18.0			
1993	20	1.6	FRA	134	10.5	123	9.9	8	57	4.5	64	5.2			
1994	29	2.3	GBR	725	57.0	538	43.4								
1995	44	3.5	GRC	19	1.5	16	1.3								
1996	32	2.5	IRL	9	0.7	14	1.1								
1997	71	5.6	ITA	25	2.0	32	2.6								
1998	96	7.5	LUX	5	0.4	0	0								
1999	128	10.1	NLD	60	4.7	48	3.9								
2000	129	10.1	PRT	6	0.5	0	0								
2001	81	6.4	SWE	85	6.7	61	4.9								
2002	55	4.3	AU	0	0.0	9	0.7								
2003	59	4.6	CA	0	0.0	16	1.3								
2004	59	4.6	JP	0	0.0	8	0.6								
2005	76	6.0	NO	0	0.0	5	0.4								
2006	78	6.1	SZ	0	0.0	26	2.1								
2007	77	6.0	US	0	0.0	171	13.8								
2008	47	3.7	Other	0	0.0	35	2.8								
2009	36	2.8													
2010	29	2.3													

Table 5. The effect of takeover law and provisions on takeover premiums

This table reports coefficients of OLS regressions of takeovers premiums involving public acquirers and public targets in European countries in the period 1986-2010. Takeover premiums are defined as offered share price divided by pre-announcement share price one day prior to the announcement. Variable definitions are provided in Appendix A. Heteroskedasticity-robust standard errors (HC3) are in parentheses. Significance levels: ***, **, * stand for 1%, 5% and 10% significance.

	(1)		(2)		(3)		(4)		(5)		(6)		(7)	
Takeover index	7.308	(2.92) **												
Ownership disclosure			19.550	(30.69)	-1.864	(29.87)	-0.598	(30.08)	5.016	(31.03)	5.954	(30.57)	6.675	(30.74)
Mandatory bid					23.574	(8.31) ***	27.870	(12.71) **	40.636	(17.08) **	51.489	(19.24) ***	52.572	(19.00) ***
Fair price for minority							-4.926	(13.52)	-10.300	(14.20)	-9.682	(14.12)	-13.756	(16.76)
Squeeze-out right									-12.497	(10.38)	-1.511	(12.09)	-4.884	(14.05)
Sell-out rights											-20.200	(13.01)	-17.503	(14.89)
Management neutrality													10.416	(16.43)
Deal value	7.262	(2.06) ***	7.279	(2.09) ***	7.187	(2.06) ***	7.171	(2.06) ***	7.061	(2.05) ***	7.015	(2.04) ***	7.019	(2.04) ***
Toehold	0.005	(0.12)	-0.022	(0.12)	0.007	(0.12)	0.005	(0.12)	0.005	(0.12)	0.000	(0.12)	0.001	(0.12)
Hostile bid	11.364	(4.62) **	11.020	(4.62) **	11.514	(4.64) **	11.479	(4.66) **	11.685	(4.64) **	11.776	(4.65) **	11.676	(4.70) **
Cash-only transaction	3.589	(2.91)	3.736	(2.91)	3.685	(2.91)	3.753	(2.94)	3.506	(2.95)	3.353	(2.96)	3.399	(2.98)
Cross-border transaction	4.049	(2.88)	4.071	(2.88)	4.188	(2.88)	4.227	(2.87)	4.407	(2.89)	4.375	(2.90)	4.255	(2.92)
Diversification	-5.099	(2.58) **	-5.059	(2.58) *	-4.966	(2.59) *	-4.932	(2.58) *	-5.027	(2.59) *	-4.929	(2.60) *	-4.908	(2.59) *
(T) CAR run-up	17.112	(6.06) ***	17.070	(6.10) ***	17.060	(6.06) ***	17.121	(6.06) ***	17.145	(6.06) ***	16.590	(6.06) ***	16.670	(6.06) ***
(T) Age	-0.087	(0.12)	-0.066	(0.12)	-0.098	(0.12)	-0.099	(0.12)	-0.104	(0.12)	-0.114	(0.12)	-0.114	(0.12)
(T) Total assets	-8.071	(2.03) ***	-8.273	(2.06) ***	-7.885	(2.01) ***	-7.851	(2.01) ***	-7.842	(2.01) ***	-7.709	(1.99) ***	-7.644	(2.00) ***
(T) Tobin's Q	-2.916	(0.67) ***	-2.926	(0.68) ***	-2.929	(0.67) ***	-2.925	(0.67) ***	-2.920	(0.67) ***	-2.944	(0.67) ***	-2.917	(0.67) ***
(T) Leverage	4.038	(8.59)	4.771	(8.58)	4.303	(8.56)	4.370	(8.58)	4.395	(8.59)	4.813	(8.58)	4.625	(8.64)
(T) Cash flow	-1.333	(11.76)	-1.375	(11.83)	-2.123	(11.75)	-2.371	(11.74)	-1.789	(11.81)	-2.199	(11.78)	-2.339	(11.78)
(T) Distressed	2.282	(3.83)	2.151	(3.83)	1.871	(3.81)	1.802	(3.82)	1.691	(3.81)	1.266	(3.79)	1.376	(3.82)
(A) Age	-0.026	(0.11)	-0.002	(0.11)	-0.035	(0.11)	-0.035	(0.11)	-0.033	(0.11)	-0.038	(0.11)	-0.041	(0.11)
(A) Total assets	0.806	(0.84)	0.799	(0.84)	0.773	(0.84)	0.762	(0.84)	0.831	(0.83)	0.778	(0.83)	0.756	(0.83)
(A) Cash flow	-0.050	(15.34)	1.044	(15.43)	-0.102	(15.20)	0.072	(15.11)	0.043	(15.02)	0.923	(14.83)	1.403	(14.90)
Target country dummies	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Industry dummies	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Year dummies	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Observations	1026		1026		1026		1026		1026		1026		1026	
R-squared (adj.)	0.139		0.131		0.141		0.141		0.142		0.144		0.139	
F-statistic	3.363		3.216		3.377		3.330		3.317		3.330		3.363	
P-value	0.000		0.000		0.000		0.000		0.000		0.000		0.000	

Table 6. The effect of takeover law and provisions on target announcement returns

This table reports coefficients of OLS regressions of announcement returns to target shareholders, that is, cumulative abnormal returns in a window of [-2,2] trading days around the takeover announcement. Variable definitions are provided in Appendix A. Heteroskedasticity-robust standard errors (HC3) are in parentheses. Significance levels: ***, **, * stand for 1%, 5% and 10% significance.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Takeover index	4.215 (1.14)***						
Ownership disclosure		22.817 (8.88)**	17.242 (9.18)*	14.748 (9.58)	17.172 (9.64)*	17.208 (9.62)*	17.035 (9.61)*
Mandatory bid			7.640 (3.17)**	2.100 (5.86)	9.968 (8.24)	10.473 (7.97)	10.505 (7.98)
Fair price for minority				6.287 (5.58)	3.674 (6.04)	3.700 (6.11)	1.239 (6.73)
Squeeze-out right					-7.496 (4.33)*	-6.860 (5.79)	-8.874 (6.15)
Sell-out rights						-1.132 (5.56)	0.912 (6.10)
Management neutrality							7.326 (5.85)
Deal value	0.907 (0.83)	0.866 (0.83)	0.833 (0.83)	0.868 (0.83)	0.877 (0.83)	0.874 (0.83)	0.907 (0.83)
Toehold	-0.133 (0.05)***	-0.143 (0.05)***	-0.141 (0.05)***	-0.138 (0.05)***	-0.136 (0.05)***	-0.136 (0.05)***	-0.138 (0.05)***
Hostile bid	6.468 (1.79)***	6.397 (1.81)***	6.316 (1.80)***	6.395 (1.80)***	6.483 (1.80)***	6.481 (1.80)***	6.351 (1.81)***
Cash-only transaction	1.899 (1.40)	1.767 (1.40)	1.877 (1.40)	1.834 (1.40)	1.701 (1.41)	1.688 (1.41)	1.729 (1.41)
Cross-border transaction	3.253 (1.43)**	3.524 (1.44)**	3.512 (1.44)**	3.411 (1.45)**	3.495 (1.45)**	3.502 (1.45)**	3.484 (1.45)**
Diversification	0.149 (1.30)	0.171 (1.30)	0.150 (1.30)	0.140 (1.30)	0.150 (1.29)	0.156 (1.29)	0.166 (1.29)
(T) CAR run-up	-3.122 (3.23)	-2.853 (3.24)	-3.077 (3.25)	-3.154 (3.26)	-3.195 (3.24)	-3.210 (3.26)	-3.150 (3.26)
(T) Age	0.001 (0.06)	0.011 (0.06)	-0.001 (0.06)	0.000 (0.06)	-0.003 (0.06)	-0.004 (0.06)	-0.004 (0.06)
(T) Total assets	-2.364 (0.90)***	-2.463 (0.90)***	-2.325 (0.90)**	-2.383 (0.91)***	-2.405 (0.90)***	-2.399 (0.91)***	-2.378 (0.91)***
(T) Tobin's Q	-1.313 (0.23)***	-1.321 (0.23)***	-1.316 (0.23)***	-1.332 (0.23)***	-1.362 (0.23)***	-1.363 (0.23)***	-1.336 (0.23)***
(T) Leverage	-4.267 (3.81)	-4.060 (3.84)	-4.144 (3.82)	-4.267 (3.84)	-4.327 (3.83)	-4.328 (3.83)	-4.362 (3.83)
(T) Cash flow	2.131 (6.76)	1.902 (6.77)	1.622 (6.77)	2.079 (6.77)	2.243 (6.75)	2.219 (6.76)	2.047 (6.75)
(T) Distressed	-0.943 (1.86)	-1.090 (1.86)	-1.142 (1.86)	-1.002 (1.87)	-1.088 (1.87)	-1.105 (1.88)	-1.041 (1.88)
(A) Age	-0.012 (0.06)	0.003 (0.06)	-0.005 (0.06)	-0.007 (0.06)	-0.008 (0.06)	-0.008 (0.06)	-0.010 (0.06)
(A) Total assets	1.489 (0.47)***	1.472 (0.48)***	1.470 (0.47)***	1.486 (0.48)***	1.497 (0.48)***	1.496 (0.48)***	1.469 (0.48)***
(A) Cash flow	18.739 (6.71)***	19.622 (6.70)***	18.987 (6.70)***	18.739 (6.71)***	18.764 (6.67)***	18.795 (6.70)***	19.216 (6.70)***
Target country dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1273	1273	1273	1273	1273	1273	1273
R-squared (adj.)	0.141	0.135	0.139	0.139	0.141	0.140	0.140
F-statistic	3.930	3.802	3.843	3.810	3.813	3.759	3.731
P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 7. Likelihood of successful takeovers and the effect of takeover provisions

This table reports coefficients of Probit regressions of the likelihood that an attempted takeover is successful as defined by Thomson Financial (SDC). Variable definitions are provided in Appendix A. Heteroskedasticity-robust standard errors (HC3) are in parentheses. Significance levels: ***, **, * stand for 1%, 5% and 10% significance.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Takeover index	0.016 (0.10)						
Ownership disclosure		-0.205 (0.80)	-0.338 (0.83)	-0.024 (0.81)	0.017 (0.80)	-0.037 (0.80)	-0.031 (0.81)
Mandatory bid			0.181 (0.26)	0.854 (0.58)	0.979 (0.75)	0.577 (0.80)	0.564 (0.79)
Fair price for minority				-0.783 (0.58)	-0.834 (0.63)	-0.910 (0.58)	-0.840 (0.58)
Squeeze-out right					-0.116 (0.34)	-0.618 (0.50)	-0.565 (0.53)
Sell-out rights						0.929 (0.56)*	0.881 (0.59)
Management neutrality							-0.229 (0.69)
Deal value	-0.058 (0.06)	-0.058 (0.07)	-0.059 (0.06)	-0.062 (0.07)	-0.062 (0.07)	-0.062 (0.07)	-0.063 (0.07)
Toehold	0.005 (0.00)	0.005 (0.00)	0.005 (0.00)	0.005 (0.00)	0.005 (0.00)	0.005 (0.01)	0.005 (0.01)
Hostile bid	-1.251 (0.15)***	-1.247 (0.15)***	-1.248 (0.15)***	-1.262 (0.15)***	-1.260 (0.15)***	-1.265 (0.15)***	-1.263 (0.15)***
Cash-only transaction	-0.183 (0.11)	-0.184 (0.11)	-0.180 (0.11)	-0.176 (0.12)	-0.179 (0.12)	-0.172 (0.12)	-0.173 (0.12)
Cross-border transaction	0.119 (0.12)	0.116 (0.12)	0.114 (0.12)	0.132 (0.12)	0.135 (0.12)	0.136 (0.12)	0.139 (0.12)
Diversification	0.073 (0.11)	0.075 (0.11)	0.074 (0.11)	0.077 (0.11)	0.077 (0.11)	0.069 (0.11)	0.069 (0.11)
(T) CAR run-up	0.131 (0.20)	0.131 (0.20)	0.130 (0.20)	0.144 (0.20)	0.142 (0.20)	0.159 (0.20)	0.157 (0.20)
(T) Age	-0.002 (0.01)	-0.002 (0.01)	-0.002 (0.01)	-0.002 (0.01)	-0.002 (0.01)	-0.002 (0.01)	-0.002 (0.01)
(T) Total assets	-0.074 (0.07)	-0.075 (0.07)	-0.071 (0.07)	-0.066 (0.07)	-0.067 (0.07)	-0.069 (0.07)	-0.070 (0.07)
(T) Tobin's Q	0.012 (0.02)	0.012 (0.02)	0.012 (0.02)	0.015 (0.02)	0.014 (0.02)	0.017 (0.02)	0.016 (0.02)
(T) Leverage	0.038 (0.33)	0.041 (0.33)	0.039 (0.33)	0.064 (0.33)	0.066 (0.33)	0.059 (0.33)	0.060 (0.34)
(T) Cash flow	0.012 (0.54)	0.014 (0.54)	0.013 (0.55)	-0.057 (0.54)	-0.051 (0.54)	-0.061 (0.54)	-0.056 (0.54)
(T) Distressed	0.086 (0.14)	0.085 (0.14)	0.083 (0.14)	0.059 (0.14)	0.057 (0.14)	0.076 (0.14)	0.075 (0.14)
(A) Age	0.003 (0.00)	0.003 (0.01)	0.003 (0.01)	0.003 (0.01)	0.003 (0.01)	0.004 (0.01)	0.004 (0.01)
(A) Total assets	0.112 (0.04)***	0.112 (0.04)***	0.113 (0.04)***	0.109 (0.04)***	0.110 (0.04)***	0.111 (0.04)***	0.111 (0.04)***
(A) Cash flow	0.513 (0.54)	0.515 (0.54)	0.503 (0.54)	0.528 (0.55)	0.530 (0.55)	0.517 (0.55)	0.504 (0.54)
Target country dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1272	1272	1272	1272	1272	1272	1272
McFadden R ² (adj.)	0.079	0.079	0.078	0.079	0.078	0.080	0.079
AIC	1152.681	1152.627	1154.161	1152.588	1154.459	1150.886	1152.687
LR test P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 8. Mediation tests for offer premium

This table reports results for Sobel mediation tests on offer premiums and the takeover law index. The hypothesis tested is whether takeover premiums (as measured by the offer price divided by the share price one day prior to the announcement) mediate the effect of takeover law on target announcement returns, bidder announcement returns or weighted target-bidder announcement returns. All models include the full set of covariates shown in Table 6 for targets, bidders and the combined entity, respectively. To conserve space, only coefficients for the variables of interest are shown here. The number of observations in this table is less than the observations in the related tables due to the additional requirement of having complete observations for offer premiums. Standard errors are in parentheses. Significance levels: ***, **, * stand for 1%, 5% and 10% significance.

	Weighted CAR	Target CAR	Bidder CAR
<i>Model regressing dependent variable (in column header) on takeover index (direct path)</i>			
Takeover index	1.235 (0.557)**	3.659 (1.421)**	1.022 (0.549)*
<i>Model regressing mediator on takeover law (path a)</i>			
Takeover index	7.800 (2.480)***	7.308 (2.453)***	7.800 (2.480)***
<i>Model regressing dependent variable on mediator and takeover law (path b)</i>			
Offer premium	0.036 (0.007)***	0.271 (0.017)***	0.005 (0.007)
Takeover index	0.953 (0.553)*	1.682 (1.263)	0.987 (0.552)*
<i>Sobel mediation tests</i>			
Path a coefficient	7.800 (2.480)***	7.308 (2.453)***	7.800 (2.480)***
Path b coefficient	0.036 (0.007)***	0.271 (0.017)***	0.005 (0.007)
Indirect effect (Sobel test; a·b)	0.282 (0.106)***	1.977 (0.675)***	0.035 (0.058)
Direct effect of takeover index	0.953 (0.553)*	1.682 (1.263)	0.987 (0.552)*
Total effect of takeover index	1.235 (0.557)**	3.659 (1.421)**	1.022 (0.549)*
<i>Model statistics for model with mediator and takeover law index (path b)</i>			
Observations	1002	1027	1002
F-test	2.660	7.900	1.930
F-test p-value	0.000	0.000	0.000
R-squared (adj.)	0.107	0.326	0.063

Table 9. The effect of takeover law and provisions on bidder announcement returns

This table reports coefficients of OLS regressions of announcement returns to bidder shareholders, that is, cumulative abnormal returns in a window of [-2,2] trading days around the takeover announcement. Variable definitions are provided in Appendix A. Heteroskedasticity-robust standard errors (HC3) are in parentheses. Significance levels: ***, **, * stand for 1%, 5% and 10% significance.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Takeover index	0.358 (0.45)						
Ownership disclosure		3.138 (3.01)	2.314 (3.01)	2.569 (3.16)	3.025 (3.22)	3.051 (3.22)	3.103 (3.24)
Mandatory bid			1.135 (1.25)	1.722 (2.28)	3.222 (2.71)	3.937 (3.00)	3.933 (3.00)
Fair price for minority				-0.666 (2.15)	-1.174 (2.20)	-1.157 (2.21)	-0.539 (2.28)
Squeeze-out right					-1.419 (1.52)	-0.567 (2.08)	-0.065 (2.18)
Sell-out rights						-1.537 (2.29)	-2.048 (2.42)
Management neutrality							-1.826 (2.08)
Deal value	-0.945 (0.30) ***	-0.951 (0.30) ***	-0.958 (0.30) ***	-0.963 (0.30) ***	-0.963 (0.30) ***	-0.967 (0.30) ***	-0.975 (0.30) ***
Toehold	0.001 (0.02)	-0.001 (0.02)	0.000 (0.02)	-0.001 (0.02)	0.000 (0.02)	-0.001 (0.02)	-0.001 (0.02)
Hostile bid	-1.579 (0.68) **	-1.607 (0.69) **	-1.616 (0.69) **	-1.626 (0.69) **	-1.610 (0.69) **	-1.616 (0.69) **	-1.582 (0.69) **
Cash-only transaction	0.497 (0.53)	0.487 (0.53)	0.502 (0.53)	0.506 (0.53)	0.479 (0.53)	0.461 (0.53)	0.452 (0.53)
Cross-border transaction	0.500 (0.57)	0.543 (0.57)	0.539 (0.57)	0.551 (0.58)	0.570 (0.58)	0.580 (0.58)	0.585 (0.58)
Diversification	-0.348 (0.51)	-0.348 (0.51)	-0.353 (0.51)	-0.354 (0.51)	-0.355 (0.51)	-0.348 (0.51)	-0.349 (0.51)
(T) CAR run-up	-0.141 (0.92)	-0.121 (0.92)	-0.152 (0.92)	-0.147 (0.92)	-0.154 (0.92)	-0.177 (0.92)	-0.190 (0.92)
(T) Age	-0.020 (0.02)	-0.020 (0.02)	-0.021 (0.02)	-0.021 (0.02)	-0.022 (0.02)	-0.023 (0.02)	-0.023 (0.02)
(T) Total assets	0.711 (0.31) **	0.704 (0.31) **	0.726 (0.32) **	0.733 (0.32) **	0.730 (0.32) **	0.740 (0.32) **	0.736 (0.32) **
(T) Tobin's Q	-0.257 (0.11) **	-0.259 (0.11) **	-0.258 (0.11) **	-0.257 (0.11) **	-0.263 (0.11) **	-0.263 (0.11) **	-0.270 (0.11) **
(T) Leverage	1.245 (1.37)	1.260 (1.37)	1.249 (1.37)	1.259 (1.37)	1.250 (1.38)	1.250 (1.38)	1.268 (1.38)
(T) Cash flow	2.323 (2.20)	2.289 (2.20)	2.246 (2.19)	2.203 (2.19)	2.243 (2.19)	2.200 (2.18)	2.226 (2.18)
(T) Distressed	-1.054 (0.64) *	-1.064 (0.64) *	-1.074 (0.64) *	-1.087 (0.64) *	-1.100 (0.64) *	-1.124 (0.64) *	-1.139 (0.64) *
(A) Age	0.026 (0.02)	0.028 (0.02)	0.026 (0.02)	0.026 (0.02)	0.026 (0.02)	0.026 (0.02)	0.027 (0.02)
(A) Total assets	0.207 (0.15)	0.203 (0.16)	0.204 (0.16)	0.203 (0.16)	0.205 (0.16)	0.202 (0.16)	0.208 (0.16)
(A) Cash flow	6.223 (3.02) **	6.296 (3.03) **	6.209 (3.02) **	6.237 (3.03) **	6.271 (3.01) **	6.324 (3.01) **	6.229 (3.02) **
Target country dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1241	1241	1241	1241	1241	1241	1241
R-squared (adj.)	0.065	0.065	0.065	0.065	0.064	0.064	0.064
F-statistic	2.220	2.222	2.203	2.172	2.154	2.133	2.113
P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 10. The effect of takeover law and provisions on weighted total announcement returns

This table reports coefficients of OLS regressions of weighted announcement returns to target and bidder shareholders, that is, cumulative abnormal returns in a window of [-2,2] trading days around the takeover announcement, weighted by target and bidder market capitalization two trading days before the announcement. Variable definitions are provided in Appendix A. Heteroskedasticity-robust standard errors (HC3) are in parentheses. Significance levels: ***, **, * stand for 1%, 5% and 10% significance.

	(1)		(2)		(3)		(4)		(5)		(6)		(7)	
Takeover index	0.833	(0.46)*												
Ownership disclosure			7.037	(2.92)**	5.908	(2.94)**	6.509	(3.14)**	7.417	(3.17)**	7.437	(3.18)**	7.383	(3.16)**
Mandatory bid					1.560	(1.29)	2.885	(2.32)	5.727	(2.79)**	6.131	(3.05)**	6.150	(3.05)**
Fair price for minority							-1.502	(2.21)	-2.489	(2.24)	-2.483	(2.25)	-3.329	(2.35)
Squeeze-out right									-2.658	(1.66)	-2.185	(1.89)	-2.868	(1.94)
Sell-out rights											-0.856	(1.92)	-0.166	(2.08)
Management neutrality													2.472	(2.19)
Deal value	-0.183	(0.32)	-0.200	(0.32)	-0.209	(0.32)	-0.222	(0.32)	-0.225	(0.32)	-0.227	(0.32)	-0.218	(0.32)
Toehold	-0.019	(0.02)	-0.022	(0.02)	-0.022	(0.02)	-0.022	(0.02)	-0.022	(0.02)	-0.022	(0.02)	-0.023	(0.02)
Hostile bid	0.391	(0.73)	0.332	(0.73)	0.319	(0.73)	0.297	(0.73)	0.327	(0.73)	0.324	(0.73)	0.278	(0.73)
Cash-only transaction	0.928	(0.55)*	0.904	(0.55)*	0.923	(0.55)*	0.931	(0.55)*	0.880	(0.55)	0.869	(0.55)	0.881	(0.55)
Cross-border transaction	0.603	(0.57)	0.698	(0.58)	0.692	(0.58)	0.718	(0.59)	0.751	(0.58)	0.757	(0.59)	0.750	(0.59)
Diversification	-0.789	(0.53)	-0.792	(0.53)	-0.800	(0.53)	-0.803	(0.53)	-0.807	(0.53)	-0.804	(0.53)	-0.804	(0.53)
(T) CAR run-up	-1.124	(0.96)	-1.075	(0.95)	-1.117	(0.96)	-1.102	(0.96)	-1.112	(0.96)	-1.125	(0.96)	-1.107	(0.96)
(T) Age	-0.025	(0.02)	-0.024	(0.02)	-0.026	(0.02)	-0.027	(0.02)	-0.028	(0.02)	-0.028	(0.02)	-0.028	(0.02)
(T) Total assets	1.080	(0.33)***	1.065	(0.33)***	1.096	(0.33)***	1.112	(0.33)***	1.108	(0.33)***	1.114	(0.33)***	1.120	(0.33)***
(T) Tobin's Q	-0.338	(0.11)***	-0.341	(0.11)***	-0.340	(0.11)***	-0.335	(0.11)***	-0.347	(0.11)***	-0.347	(0.11)***	-0.338	(0.11)***
(T) Leverage	0.687	(1.39)	0.725	(1.39)	0.709	(1.39)	0.732	(1.39)	0.717	(1.40)	0.717	(1.40)	0.693	(1.40)
(T) Cash flow	3.393	(2.29)	3.325	(2.28)	3.268	(2.29)	3.176	(2.28)	3.256	(2.27)	3.233	(2.27)	3.200	(2.27)
(T) Distressed	-1.334	(0.71)*	-1.357	(0.71)*	-1.370	(0.71)*	-1.399	(0.71)**	-1.423	(0.71)**	-1.436	(0.71)**	-1.416	(0.71)**
(A) Age	0.023	(0.02)	0.027	(0.02)	0.025	(0.02)	0.025	(0.02)	0.025	(0.02)	0.025	(0.02)	0.024	(0.02)
(A) Total assets	-0.773	(0.18)***	-0.780	(0.18)***	-0.780	(0.18)***	-0.782	(0.18)***	-0.778	(0.18)***	-0.779	(0.18)***	-0.787	(0.18)***
(A) Cash flow	4.694	(3.09)	4.867	(3.08)	4.748	(3.09)	4.814	(3.09)	4.881	(3.05)	4.911	(3.04)	5.042	(3.07)
Target country dummies	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Industry dummies	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Year dummies	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Observations	1240		1240		1240		1240		1240		1240		1240	
R-squared (adj.)	0.083		0.083		0.083		0.083		0.084		0.084		0.084	
F-statistic	2.570		2.574		2.562		2.532		2.541		2.508		2.491	
P-value	0.000		0.000		0.000		0.000		0.000		0.000		0.000	

Table 11. The effect of takeover law and provisions on weighted total announcement returns – excluding UK targets

This table reports coefficients of OLS regressions of weighted announcement returns to target and bidder shareholders, that is, cumulative abnormal returns in a window of [-2,2] trading days around the takeover announcement, weighted by target and bidder market capitalization two trading days before the announcement. Variable definitions are provided in Appendix A. Heteroskedasticity-robust standard errors (HC3) are in parentheses. Significance levels: ***, **, * stand for 1%, 5% and 10% significance.

	(1)		(2)		(3)		(4)		(5)		(6)		(7)	
Takeover index	1.270	(0.63)**												
Ownership disclosure			11.472	(4.46)**	11.080	(4.48)**	13.207	(5.16)**	14.330	(5.31)***	14.336	(5.34)***	14.821	(5.36)***
Mandatory bid					2.990	(1.76)*	5.858	(2.90)**	9.005	(3.29)***	8.995	(3.48)***	9.516	(3.51)***
Fair price for minority							-3.042	(2.45)	-4.120	(2.48)*	-4.123	(2.50)	-5.748	(2.80)**
Squeeze-out right									-3.080	(1.69)*	-3.095	(2.08)	-4.196	(2.19)*
Sell-out rights											0.029	(2.30)	1.381	(2.62)
Management neutrality													3.722	(2.71)
Deal value	-0.328	(0.47)	-0.391	(0.48)	-0.376	(0.48)	-0.419	(0.48)	-0.449	(0.47)	-0.449	(0.47)	-0.419	(0.47)
Toehold	-0.041	(0.02)	-0.045	(0.02)*	-0.044	(0.03)*	-0.046	(0.03)*	-0.045	(0.03)*	-0.045	(0.03)*	-0.046	(0.03)*
Hostile bid	-0.899	(1.30)	-1.169	(1.26)	-0.975	(1.27)	-1.109	(1.27)	-1.055	(1.25)	-1.055	(1.25)	-1.379	(1.27)
Cash-only transaction	1.095	(0.96)	1.055	(0.95)	0.927	(0.96)	0.909	(0.96)	0.808	(0.96)	0.808	(0.96)	0.766	(0.96)
Cross-border transaction	-0.435	(0.79)	-0.280	(0.80)	-0.241	(0.80)	-0.144	(0.81)	-0.085	(0.81)	-0.085	(0.82)	-0.115	(0.81)
Diversification	-2.122	(0.91)**	-2.133	(0.90)**	-2.107	(0.90)**	-2.075	(0.90)**	-2.105	(0.89)**	-2.105	(0.89)**	-2.050	(0.89)**
(T) CAR run-up	-2.931	(1.90)	-2.617	(1.84)	-2.880	(1.91)	-2.840	(1.93)	-2.852	(1.91)	-2.851	(1.92)	-2.835	(1.91)
(T) Age	-0.092	(0.05)*	-0.088	(0.05)	-0.096	(0.05)*	-0.096	(0.05)*	-0.104	(0.05)*	-0.104	(0.05)*	-0.103	(0.05)*
(T) Total assets	1.285	(0.50)***	1.295	(0.50)**	1.289	(0.50)**	1.349	(0.50)***	1.373	(0.50)***	1.373	(0.50)***	1.379	(0.50)***
(T) Tobin's Q	-0.299	(0.12)**	-0.292	(0.12)**	-0.312	(0.12)***	-0.307	(0.12)***	-0.318	(0.12)***	-0.318	(0.12)***	-0.305	(0.12)**
(T) Leverage	-0.110	(2.13)	-0.294	(2.14)	-0.184	(2.12)	-0.106	(2.13)	-0.150	(2.14)	-0.149	(2.15)	-0.127	(2.14)
(T) Cash flow	2.748	(4.63)	2.065	(4.53)	2.157	(4.59)	1.667	(4.59)	1.762	(4.53)	1.764	(4.54)	1.690	(4.56)
(T) Distressed	-1.057	(1.19)	-1.002	(1.20)	-1.162	(1.18)	-1.301	(1.19)	-1.377	(1.18)	-1.377	(1.19)	-1.336	(1.19)
(A) Age	0.052	(0.04)	0.067	(0.04)*	0.060	(0.04)	0.061	(0.04)	0.060	(0.04)	0.060	(0.04)	0.057	(0.04)
(A) Total assets	-0.719	(0.29)**	-0.758	(0.29)***	-0.746	(0.29)**	-0.752	(0.29)**	-0.738	(0.29)**	-0.738	(0.29)**	-0.752	(0.29)***
(A) Cash flow	1.458	(6.05)	2.289	(6.11)	2.023	(6.04)	2.433	(6.06)	2.646	(5.88)	2.642	(5.90)	3.212	(6.03)
Target country dummies	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Industry dummies	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Year dummies	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Observations	532		532		532		532		532		532		532	
R-squared (adj.)	0.081		0.084		0.089		0.090		0.095		0.093		0.095	
F-statistic	1.691		1.712		1.750		1.753		1.788		1.760		1.767	
P-value	0.001		0.001		0.000		0.000		0.000		0.000		0.000	